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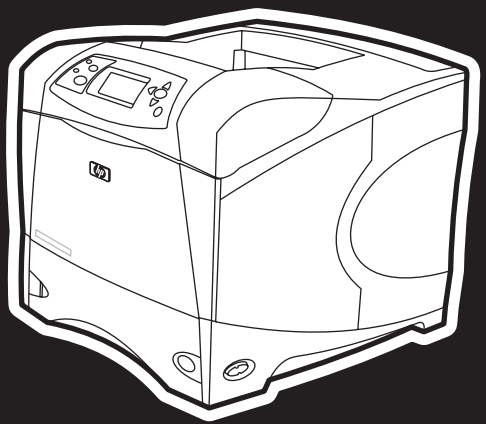

hp LaserJet 4200/4300

hp LaserJet 4200 and 4300 series printers

software technical reference

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1 Purpose and scope

Introduction

This Software Technical Reference (STR) provides information and troubleshooting tips for the printing system software for the HP LaserJet 4200 and HP LaserJet 4300 series printers.

This document is prepared in an electronic format to serve as a quick-reference tool for Customer Care Center (CCC) agents, support engineers, system administrators, management information systems (MIS) personnel, and HP LaserJet printer end-users, as appropriate.

The following information is included in this technical reference:

- descriptions of drivers and platforms with system modifications
- procedures for installing and uninstalling software components
- descriptions of problems that can arise while using the printer, and known solutions to those problems
- descriptions of known software issues and workarounds

The following table contains descriptions of the printer models described in this STR. The printing system software for each printer model accommodates the differences between models.

Note Bundle configurations might vary among geographic regions.

HP LaserJet 4200 and HP LaserJet 4300 series printers

Table 1: Features of the HP LaserJet 4200 and the HP LaserJet 4300 series printers

Models	Memory	Speed	Connectivity	Paper handling	Resolution and print cartridge
Base model	• 48 megabytes (MB) Random Access Memory (RAM), expandable to 416 MB (4200 series) • 64 MB RAM, expandable to 416 MB (4300 series)	• 35 pages per minute (ppm) letter-size media; 34 ppm A4-size media (4200 series) • 45 ppm letter-size media; 44 ppm A4-size media (4300 series)	• Parallel connection	• one 100-sheet multipurpose tray (tray 1); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • one 500-sheet tray (tray 2); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • optional high-capacity input (HCI) 1,500-sheet tray	• 1200 dots per inch (dpi) ProRes/600 dpi dual-beam scanner • 12,000-page print cartridge (4200 series) • 18,000-page print cartridge (4300 series)
n model	• 64 MB RAM, expandable to 416 MB (4200 series) • 80 MB RAM, expandable to 416 MB (4300 series)	• 35 ppm letter-size media; 34 ppm A4-size media (4200 series) • 45 ppm letter-size media; 44 ppm A4-size media (4300 series)	• Parallel connection • HP Jetdirect 10/100Base-TX print server card for network connection	• one 100-sheet multipurpose tray (tray 1); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • one 500-sheet tray (tray 2); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • optional high-capacity input (HCI) 1,500-sheet tray	• 1200 dpi ProRes/600 dpi dual-beam scanner • 12,000-page print cartridge (4200 series) • 18,000-page print cartridge (4300 series)

Models	Memory	Speed	Connectivity	Paper handling	Resolution and print cartridge
tn model	• 64 MB RAM, expandable to 416 MB (4200 series) • 80 MB RAM, expandable to 416 MB (4300 series)	• 35 ppm letter-size media; 34 ppm A4-size media (4200 series) • 45 ppm letter-size media; 44 ppm A4-size media (4300 series)	• Parallel connection • HP Jetdirect 10/100Base-TX print server card for network connection	• one 100-sheet multipurpose tray (tray 1); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • two 500-sheet trays (trays 2 and 3); maximum paper size , legal (216 mm by 356 mm, 8.5 by 14 inches) • optional high-capacity input (HCI) 1,500-sheet tray*	• 1200 dpi ProRes/600 dpi dual-beam scanner • 12,000-page print cartridge (4200 series) • 18,000-page print cartridge (4300 series)
dtn model	• 64 MB RAM, expandable to 416 MB (4200 series) • 80 MB RAM, expandable to 416 MB (4300 series)	• 35 ppm letter-size media; 34 ppm A4-size media (4200 series) • 45 ppm letter-size media; 44 ppm A4-size media (4300 series)	• Parallel connection • HP Jetdirect 10/100Base-TX print server card for network connection	• one 100-sheet multipurpose tray (tray 1); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • two 500-sheet trays (trays 2 and 3); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • duplexing unit for automatic two-sided printing • optional HCI 1,500-sheet tray*	• 1200 dpi ProRes/600 dpi dual-beam scanner • 12,000-page print cartridge (4200 series) • 18,000-page print cartridge (4300 series)

Models	Memory	Speed	Connectivity	Paper handling	Resolution and print cartridge
dtns model	• 64 MB RAM, expandable to 416 MB (4200 series) • 80 MB RAM, expandable to 416 MB (4300 series)	• 35 ppm letter-size media; 34 ppm A4-size media (4200 series) • 45 ppm letter-size media; 44 ppm A4-size media (4300 series)	• Parallel connection • HP Jetdirect 10/100Base-TX print server card for network connection	• one 100-sheet multipurpose tray (tray 1); maximum paper size , legal (216 mm by 356 mm, 8.5 by 14 inches) • two 500-sheet trays (trays 2 and 3); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • duplexing unit for automatic two-sided printing • 500-sheet stacker output accessory • optional HCI 1,500-sheet tray*	• 1200 dpi ProRes/600 dpi dual-beam scanner • 12,000-page print cartridge (4200 series) • 18,000-page print cartridge (4300 series)
dtnsl model	• 64 MB RAM, expandable to 416 MB (4200 series) • 80 MB RAM, expandable to 416 MB (4300 series)	• 35 ppm letter-size media; 34 ppm A4-size media (4200 series) • 45 ppm letter-size media; 44 ppm A4-size media (4300 series)	• Parallel connection • HP Jetdirect 10/100Base-TX print server card for network connection	• one 100-sheet multipurpose tray (tray 1); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • two 500-sheet trays (trays 2 and 3); maximum paper size, legal (216 mm by 356 mm, 8.5 by 14 inches) • duplexing unit for automatic two-sided printing • 500-sheet stapler/stacker output accessory • optional HCI 1,500-sheet tray*	• 1200 dpi ProRes/600 dpi dual-beam scanner • 12,000-page print cartridge (4200 series) • 18,000-page print cartridge (4300 series)

*Trays 3 and 4 automatically renumber themselves when they are stacked. If tray 3 is a 1,500-sheet tray, no tray 4 can be attached. The 1,500-sheet tray is a high-capacity tray, but it does not use HP Jet-link.

2 Software description

Introduction

The HP LaserJet 4200 and 4300 series printers come with software and installers for Microsoft (R) Windows (R) and Apple Computer, Inc., Macintosh systems. UNIX (R) and OS/2 systems are supported, and software is available on the Web. For specific information about a system's installer, drivers, and components, locate the section that corresponds to that system.

Supported operating systems

The following operating systems (OSs) support the HP LaserJet 4200 and 4300 printing-system software, including standard printer command language (PCL) drivers and PostScript (R) (PS) emulation drivers. Windows OSs support a full-featured configuration of the HP LaserJet 4200 and 4300 series printers; other OSs support varying levels of functionality.

- Windows 95.
- Windows 98.
- Windows Millennium Edition (Me).
- Windows NT (R) 4.0 (Service packs 3 through 6).
- Windows 2000 (Service packs 1 and 2).
- Windows XP Professional and Windows XP Home Edition (Windows XP)
- IBM OS/2 2.0 or later (available on the IBM Web site at **http://www.ibm.com**).
- Mac OS 8.6 to 9.*x* and Mac OS X Classic.

Windows Terminal Server, Windows Cluster Server, and Citrix Terminal server technology accommodates as many as 128 devices or terminals to share the resources dynamically on a terminal server. A terminal server eliminates the need for modems, network interface cards, programs, or complete operating systems on the terminals. Terminals can include personal computers, so-called dumb terminals, printers, and other devices. Terminal clients connect to the terminal server through Transmission Control Protocol/Internet Protocol (TCP/IP). Citrix Metaframe supports connection through TCP/IP, NETBIOS Extended User Interface (NetBEUI), Internetwork Packet Exchange/Sequenced Packet Exchange (IPX/SPX), and asynchronous modem connections. In turn, the terminal server connects to a local area network (LAN) through a network interface card. For information about supported printers and driver versions (including a list of supported printers, recommendations for installing printer drivers, a description of terminal server configurations, differences between terminal server versions, and differences between remote client operating systems), go to **http://www.hp.com/cposupport/printers/support_doc/bpl10248.html**

Technology background information

This section contains information about the following topics:

- HP LaserJet user documentation
- Bidirectional communication
- Driver Autoconfiguration
- HP Web Access
- Printer Status and Alerts
- Remote firmware update
- Euro character

HP LaserJet user documentation

Adobe(R) Acrobat Reader(R)

The HP LaserJet software compact disk read-only memory (CD-ROM) includes Adobe Acrobat Reader version 5.0 (version 4.05c for Russian) for viewing online documentation. When you click any of the documentation links on the HP LaserJet 4200 and 4300 software CD-ROMs, the installer scans the system for an installed Portable Document Format (PDF) reader. If the installer cannot find a reader, the installer presents the option to install the Adobe Acrobat Reader.

Note Adobe Acrobat Reader 4.0 or later is required to view the documents on the HP LaserJet 4200 and 4300 software CD-ROMs.

HP LaserJet guides

On the CD-ROM that came with the printers, the *HP LaserJet 4200 and 4300 User Guide* is supplied in Adobe Acrobat Reader PDF files for viewing on your computer.

You can either view the guides from the HP LaserJet 4200 and 4300 software CD-ROMs or install them on your system. To install the online user guides, select the User Guide check box during a Custom Installation. The guide is installed in the Manuals folder on the target system. You can also choose to install the guides later, or to read the guide on the printing system software CD-ROM by navigating to <language>/Manuals.

In accordance with the Americans with Disabilities Act (ADA), Hewlett-Packard provides readable, onscreen versions of the *HP LaserJet 4200 and 4300 User Guide* at the following HP Web sites:

http://www.hp.com/support/lj4200

http://www.hp.com/support/lj4300

Hyperlinked, screen-readable versions of the *HP LaserJet 4200 and 4300 User Guide* is available on the printer software CD-ROM. To view the user guide, navigate to the **English** folder, and then to the **Manuals** folder. There, open HP4200EN.CHM or HP4300EN.CHM.

HP LaserJet 4200 and 4300 series printing-system installation notes

The HP LaserJet 4200 and 4300 Series Printing System Installation Notes are available on the HP LaserJet software CD-ROM. The installation notes (filename READ4200.RTF for the HP LaserJet 4200 printer, and READ4300.rtf for the HP LaserJet 4300 printer) contain important information about printer features, instructions for installing the printing-system software, and technical assistance.

To view this text file from the HP LaserJet 4200 and 4300 software CD-ROMs, click **View Documentation**, and then click **Readme**.

You can also gain access to the file by inserting the CD-ROM, navigating to <LANGUAGE>, and then clicking the filename, (READ4200.RTF for the HP LaserJet 4200 printer and READ4300.RTF for the HP LaserJet 4300 printer). When you have the file open in Notepad, you can click **File**, and then click **Save As** to save a copy of the file to another location.

HP LaserJet 4200 and 4300 printing-system release notes

The Hewlett-Packard LaserJet 4200 and 4300 Printing System Release notes, late-breaking information, and other technical assistance, are available at the following Web sites:

http://www.hp.com/support/lj4200

http://www.hp.com/support/lj4300

Bidirectional communication

[1]Not supported.

[2]Bidirectional functionality is supported only with the client software from Novell. It is not supported with Microsoft Client Service for NetWare.

[3]Novell Directory Services.

[4]Printer Status and Alerts is not installed when the share computer is running Terminal Server.

Bidirectional interface and connectivity

The following table lists the driver user interface (UI) controls bidirectional communication sets when the user clicks **Update Now** or when Enterprise Auto-configure is initiated. To the right are the corresponding PML counterparts.

The Corresponding Object ID column shows the values that the driver .INF file inserts into the registry, as transformed from the firmware OID number, such as: 2.8.2.1.10.1 A set of Object ID to printer management language (PML) mappings appear in the registry. A component called NRA queries the Object IDs in the registry from the printer, and sets the corresponding PML value to what the printer returns. The driver then parses these PML values to determine the printer's configuration. For example, when NRA asks the printer for the Object ID that corresponds to hrMemorySize, the printer returns a value such as 6553610, and this value is stored in the hrMemorySize registry key. The driver then reads this value, and sets the printer memory configuration to 64 MB.

Note The printer model name is not tied to a UI control, but the driver uses the printer model name to verify that it is communicating with the correct printer model.

Note The default UI settings are based on the printer base bundle.

Note The strings that are returned from firmware for the various paper source and destination options are not included in this table.

Table 3: Driver UI controls set by bidirectional communication

UI control	UI default setting	PML object for control	PML default value	Corresponding object ID
Printer model name	N/A	MODEL_NAME	" "	01,03,06,01,04,01,0B,02,03,09,04,02,01,01,03,02,00
Driver work space	7.74 MB	HOST-APPLICATION-AVAILABLE-MEMORY	6400 (10)	01,03,06,01,04,01,0B,02,03,09,04,02,01,01,02,3B,00
Duplexing unit check box	clear	prtMediaPathType2	6400 (10)	01,03,06,01,02,01,2b,0d,04,01,09,01,02
Total memory control	64 MB	HrMemorySize	6400 (10)	01,03,06,01,02,01,19,02,02,00
Mopier enabled check box	selected	MOPY_MODE	6400 (10)	01,03,06,01,04,01,0b,02,03,09,04,02,01,02,04,01,01,00
Hard disk check box	clear	hrDiskStorageMedia2 . . . hrDiskStorageMedia4	6400 (10)	01,03,06,01,02,01,19,03,06,01,02,02 ….01,03,06,01,02,01,19,03,06,01,02,04
Option paper destinations drop-down list	None	PHD1-MODEL . . . PHD6-MODEL	" "	01,03,06,01,04,01,0b,02,03,09,04,02,01,04,01,07,03,01,04,00… 01,03,06,01,04,01,0b,02,03,09,04,02,01,04,01,07,03,02,04,00

UI control	UI default setting	PML object for control	PML default value	Corresponding object ID
Optional paper sources drop-down list	None	PHD1-MODEL . . . PHD6-MODEL	" "	01,03,06,01,04,01,0b,02,03,09,04,02,01,04,01,07,03,01,04,00… 01,03,06,01,04,01,0b,02,03,09,04,02,01,04,01,07,03,02,04,00
Type is:	No user-defined types	Media15Name . . . Media19-Name	" "	01,03,06,01,04,01,0b,02,03,09,04,02,01,04,01,08,03,0F,01,00 ... 01,03,06,01,04,01,0b,02,03,09,04,02,01,04,01,08,03,13,01,00

Driver Autoconfiguration

The HP LaserJet PCL 6 and PCL 5e drivers for Windows feature bidirectional communication technology which, in supported environments, provides automatic discovery and driver configuration for printer accessories at the time of installation or later, if needed. Some accessories that are supported by Driver Autoconfiguration are the duplexing unit, optional paper trays, dual inline memory modules (DIMMs), and the hard drive.

If the environment supports bidirectional communication, the installer presents Driver Autoconfiguration as an installable component by default for a Typical Installation, and as an optional installable component for a Custom Installation. The Driver Autoconfiguration component installs the bidirectional communication software. If the installation environment does not support bidirectional communication, the Driver Autoconfiguration option does not appear during installation. However, installed drivers will be configured automatically in accordance with the HP printer bundle that is selected during installation of the printing-system software.

Driver Autoconfiguration works in four ways:

- In environments that support bidirectional communication, the computer communicates with the printer, determines the physical configuration, and then configures the driver accordingly.
- If the configuration of the HP LaserJet 4200 and 4300 series printers change after installation, the driver can be automatically updated with the new configuration in environments that support bidirectional communication. For example, if the base printer model is installed and an optional duplexing unit is added later, you can automatically configure the duplexing unit in the driver by clicking the **Update Now** button on the driver's **Configuration** tab.

The **Update Now** button activates the HP Network Registry Agent (HPNRA) and triggers the driver to recheck the registry for new information. The HPNRA automatically updates the registry and changes the configuration information that appears on the **Configuration** tab in the Printer folder.

Note The bidirectional communication software necessary for the two methods of Driver Autoconfiguration described above is included in a Typical Installation when installing a network printer in supported environments. The feature is also a selectable option for a Custom Installation.

- In environments that do not support bidirectional communication, the driver automatically configures options based on the HP LaserJet 4200 or 4300 series printer bundle that is selected during the installation of the printing-system software. Configuration is based solely on the definition of the printer bundle.
- Enterprise AutoConfiguration (EAC) is a version of bidirectional communication that provides autoconfiguration functionality for an Add Printer Wizard installation (when you do not use autoselect). An Add Printer Wizard installation that includes EAC is identical to other Add Printer installations, except that when installation is complete, the driver for the supported printer is configured with the same settings as the physical configuration of the device. Configuration occurs without user interaction.

If bidirectional communication software has been installed previously, EAC will not be activated, and the Add Printer Wizard uses the pre-existing bidirectional communication to configure the printer. If bidirectional communication software has not been installed, EAC configures the driver to match the device configuration, which it detects automatically. EAC is active only as needed to use the autoconfiguration utility, and is then shut off. The files required to install EAC remain on your system.

HP Web Access

The HP Web Access feature, also known as the embedded Web server (EWS), contains the following components:

- embedded virtual machine for Java (TM) applications
- Web pages
- storage space

HP Web Access is a standard feature for the HP LaserJet 4200 and HP LaserJet 4300 series printers.

HP Web Access provides a simple, easy-to-use solution for one-to-one printer management. In offices with a limited number of printers, remote management of printing devices can be accomplished without installing any management software, such as HP Web JetAdmin. The only requirement is that the management console have a supported Web browser.

In environments with a larger number of printers, where one-to-one management is impractical, HP Web Access and HP Web JetAdmin work together to provide scalable remote printer management. HP Web JetAdmin is used for consolidated management tasks, where operations are performed on a selected set of printers instead of on individual printers. For such environments, HP has provided hooks between HP Web Access and HP Web JetAdmin so that Web Access features can be configured on multiple printers in one operation. For example, the security password for HP Web Access can be set on a population of printers simultaneously.

For additional information and a copy of the **HP Embedded Web Server for HP LaserJet Printers** guide, go to one of the following Web sites:

http://www.hp.com/support/lj4200

http://www.hp.com/support/lj4300

To view information about the printer by using HP Web Access, open a supported Web browser and type in the printer TCP/IP address or host name. To find the TCP/IP address, look for "IP Address" on the enhanced input/output (EIO) Jetdirect page, in the "TCP/IP" section under "Protocol Information". To find the host name of the printer, look for "Host Name" in the "TCP/IP" section. To print a copy of the EIO Jetdirect page from the printer control-panel display, see the instructions for printing a configuration page in the "Determining the current level of firmware" section. You also can view information about an installed HP Jetdirect print server by clicking the **Networking** tab in the HP Web Access window.

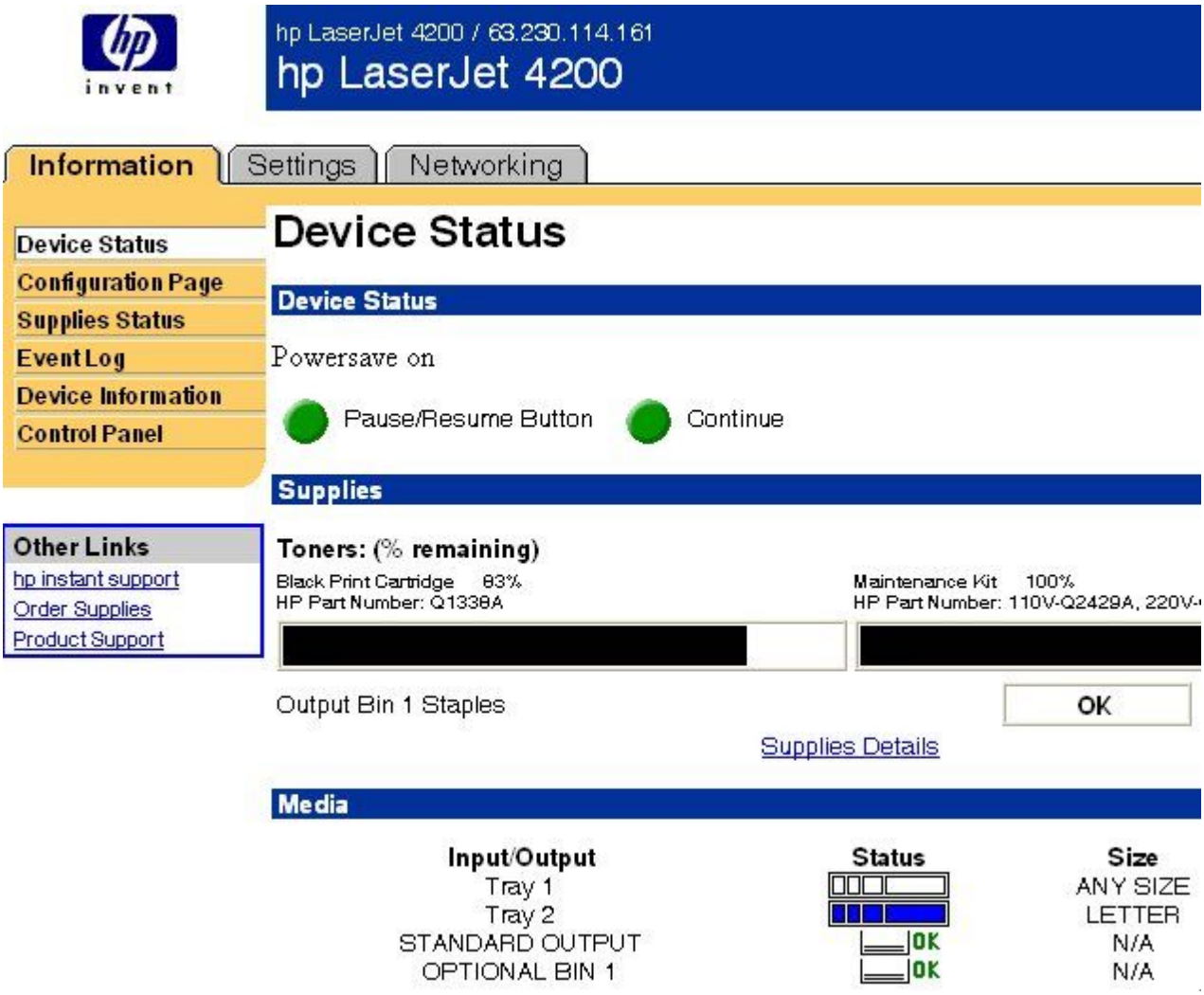
Information tab

HP Web Access offers the following additional features. To view the information, click the items on the menu that is on the left side of the HP Web Access **Information** tab:

- **Device Status**. This page provides current status information about your printer.
- **Configuration Page**. This page provides information about the configuration for your printer.
- **Supplies Status**. This page provides information about the print cartridge and the total pages printed, and the serial number of the printer.
- **Event Log**.This page provides information about reported printer errors.
- **Usage Page**. This page provides information about printer usage.
- **Device Information**. This page shows device information, such as the printer TCP/IP address and serial number.
- **Control Panel**. This page shows the layout of the control panel.

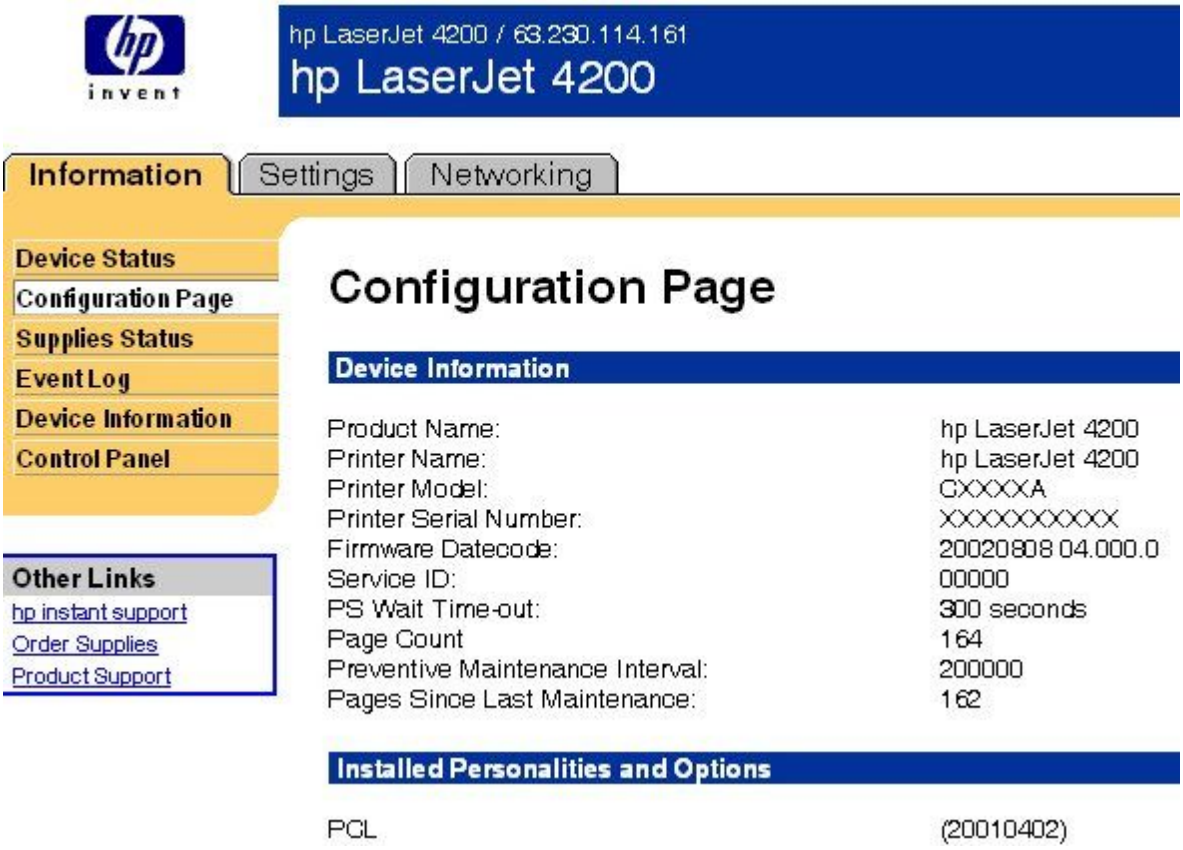
Device status

If a printer problem exists, status information (such as whether the printer is online or the toner is low) is available through your Web browser on a computer that is linked directly to the printer. You can view this information without physically going to the printer to identify the status. The following illustration shows how this information is presented on the printer's Web page.



Configuration information

The HP LaserJet printer configuration page is available remotely through HP Web Access. The HP Web Access configuration page provides configuration information about the printer in the same way as the configuration page printed from the printer. The following illustration shows an example of a configuration page viewed remotely through HP Web Access.



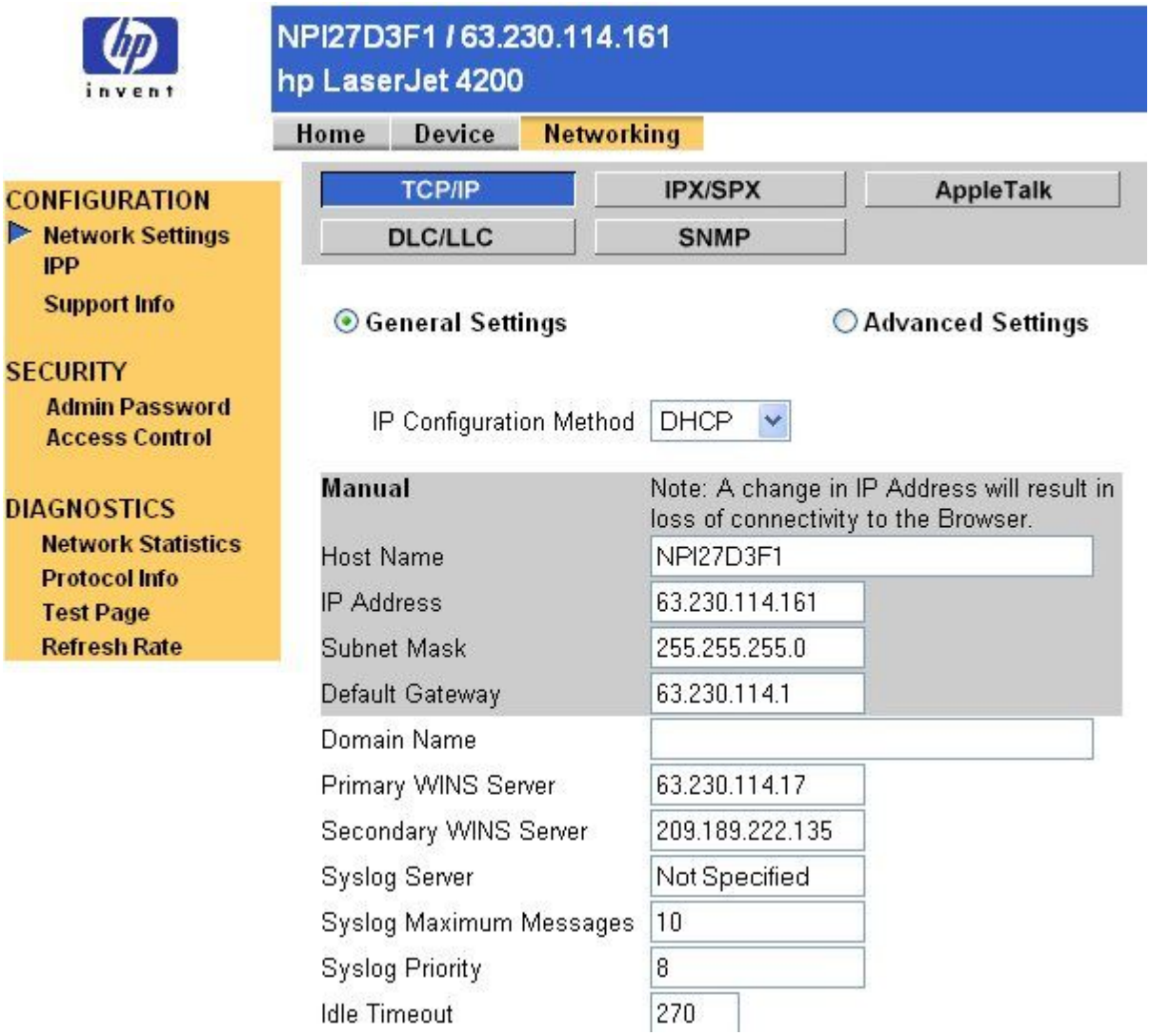
- Alerts
- Email
- Security
- Other Links
- Device Information
- Language
- Time Services

Remote printer configuration

Printer configuration information can be obtained through a Web browser by opening the printer HP Web Access page and changing any of the basic configuration information on the **Settings** tab. Security and password controls provide management information system managers with the level of control required within their environments. The following illustration shows an example of printer options that can be configured remotely.

Networking tab

The following illustration shows the **Network Settings** option on the HP Web Access **Networking** tab.



Diagnostics

- Network Statistics
- Protocol Info
- Test Page
- Refresh Rate

Network settings

From the **Networking** tab, you can enable and configure the following network protocols:

- TCP/IP
- IPX/SPX
- AppleTalk
- Data Link Control/Logical Link Control (DLC/LLC)
- Simple Network Management Protocol (SNMP)

Configurable e-mail alerts

The printer can automatically send e-mail alerts about printer problems or job status to specified e-mail addresses. For example, if toner is low, the printer can notify the person responsible for ordering or changing the cartridge. If there is a printer failure, an e-mail alert can be sent directly to the person responsible for fixing the problem. These e-mail alerts can be configured to be sent to any device that can accept e-mail, such as digital phones, pagers, and personal digital assistants. In large environments, administrators can route e-mail addresses to list-servers or universal resource locator addresses (URLs) for expanded notification.

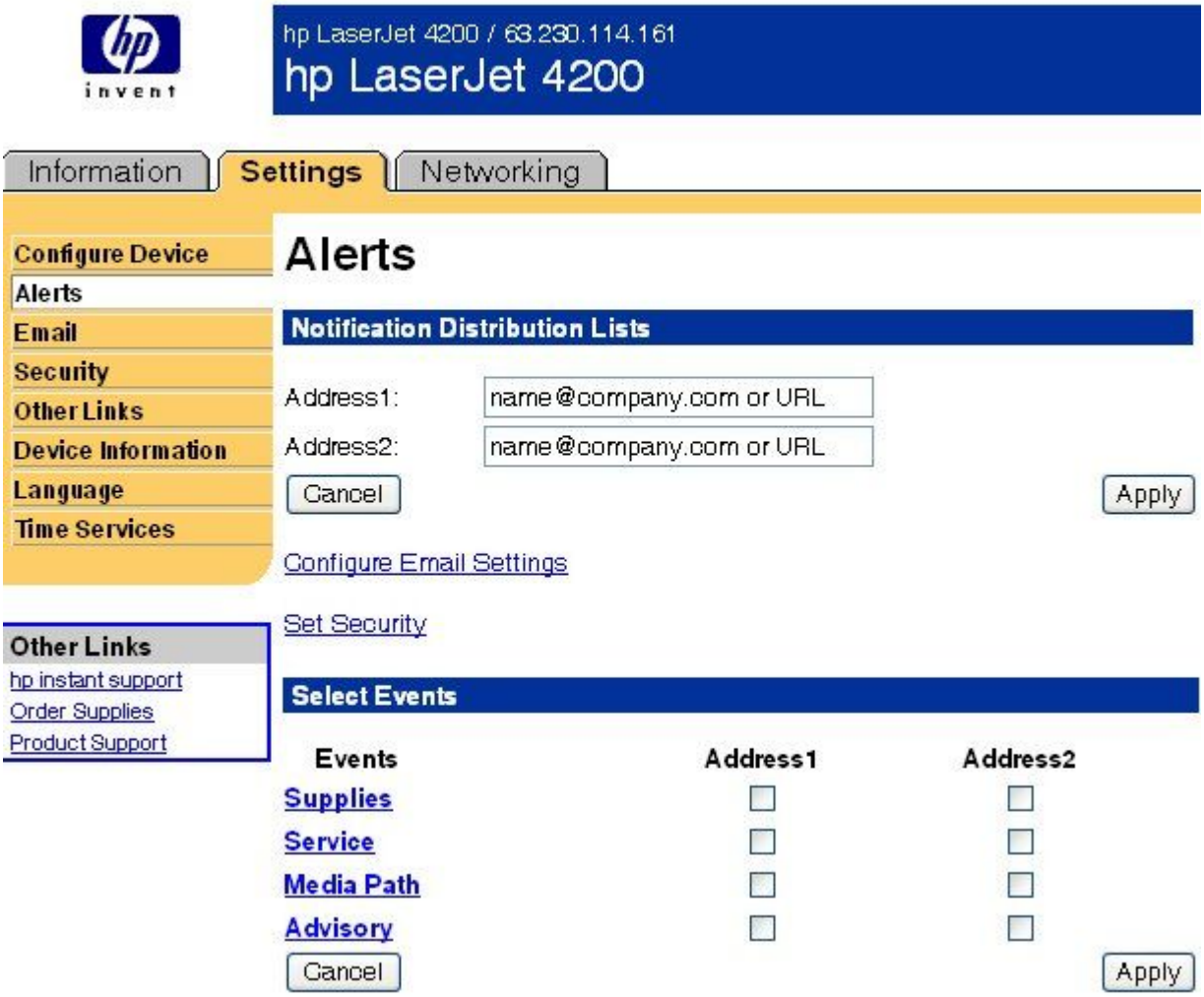


Figure 5: Configurable Alerts page

Printer Status and Alerts

The HP LaserJet printing-system software includes a utility called Printer Status and Alerts that you can use to monitor print jobs and printer status from the desktop. The Printer Status and Alerts feature provides printer and job status information such as printing history, job progress, toner and paper levels, and consumables and supplies reorder information, and presents a simulated view of the printer control panel. This utility offers several options for configuring pop-up windows to view the status of the printer and of individual print jobs.

Printer Status and Alerts is a selectable component of Custom Installation. To install Printer Status and Alerts, choose **Custom Installation** and select the appropriate check box.

Printer Status and Alerts features are available for printers connected by means of a connection, whether direct or over a network, that supports bidirectional functionality. The Printer Status and Alerts feature cannot be installed over infrared (IR) or serial ports. See "Bidirectional communication."

For Windows 95, the Microsoft Winsock2 patch must first be installed. To download the Microsoft Winsock2 patch, go to **http://www.microsoft.com/windows95/downloads/contents/WUAdminTools/S_WUNetworkingTools/W95Sockets2/Default.asp**

For all operating systems, the computer must have Internet Explorer version 4.72 or later installed; version 5.0 or later is recommended.

HP Printer Status and Alerts communicates with the printer only during an active print job to minimize network traffic.

The following restrictions apply to HP products that use Printer Status and Alerts:

- Windows NT 4.0, Windows 2000, and Windows XP do not support Printer Status and Alerts with terminal servers.
- For Device Status (printer icons in the status window), the computer must have Internet Explorer version 4.72.*x* or later installed. To find the version number, open Internet Explorer, click **Help**, and then click **About Internet Explorer**. Netscape browsers do not support Printer Status and Alerts. No Internet Explorer is necessary for getting status about jobs. Internet Explorer can be installed after installing Printer Status and Alerts.
- Netscape browsers do not support HP Printer Status and Alerts.
- On a few programs, such as Microsoft Excel and Seagate Crystal Reports, multiple copies of the same document show up in the Printer Status and Alerts window as separate jobs. This is because these programs actually send each copy as a separate job.
- For Windows screen reader programs, such as Job Access With Speech from Freedom Scientific, the computer must have Internet Explorer version 5.0 or later installed. To find the version number, open Internet Explorer and click **Help**, and then click **About Internet Explorer**. Version 5.0 is reported as Version 5.00.*x* or later. No Internet Explorer is necessary for getting status about jobs for network-connected printers. Internet Explorer can be installed after installing Printer Status and Alerts.
- When renaming a driver, job and device status will not be tracked until the computer is restarted.
- Drivers added after Printer Status and Alerts is installed are not recognized until the computer is restarted.
- Clicking the **Cancel** button in the Printer Status and Alerts window will not always cancel a job. This button sends a cancel request to the printer, but if the job has already been processed, it might not be possible to cancel the job (this is commonly the case with smaller jobs).
- When using Printer Status and Alerts with Microsoft printer sharing, the following items apply:
- The Microsoft patch "Vredir" is required if you want to use Printer Status and Alerts on a Windows 98 or Windows Me computer for a printer that has been shared directly from a computer with Windows NT 4.0, Windows 2000, or Windows XP installed. Failure to install the patch could cause an intermittent blue screen to appear on the client computer.
- For Microsoft shared printers, the host system must have either **Printer Status and Alerts** or the **HP Driver Autoconfiguration** option from the HP installer on the computer. Load Printer Status and Alerts on the computer sharing the printer before loading Printer Status and Alerts on the client computer.
- For Windows 95, Windows 98, and Windows Me client computers that have Printer Status and Alerts installed, installing a printer by using the Point and Print method will not activate Printer Status and Alerts.

When the Printer Status and Alerts feature is installed, a status icon in the form of a printer is included in the Windows system tray in the lower-right corner of the screen. The printer icon remains unchanged until you send a print job to the HP LaserJet 4200 and 4300 series printers. When you send a print job, the icon changes to alert you to the status of the print job. Eight icons exist in this feature. The eight icons in the following illustration show current job status. Neither the **Receiving nor the Waiting** icon ever shows up in the Systray. When the print job is in a receiving or waiting state, the **Printing** icon appears in the Systray.

The icons behave differently, depending on whether the printer is connected through a direct connection (universal serial bus [USB] or parallel) or through a network.

Figure 7: Printer Status and Alerts window

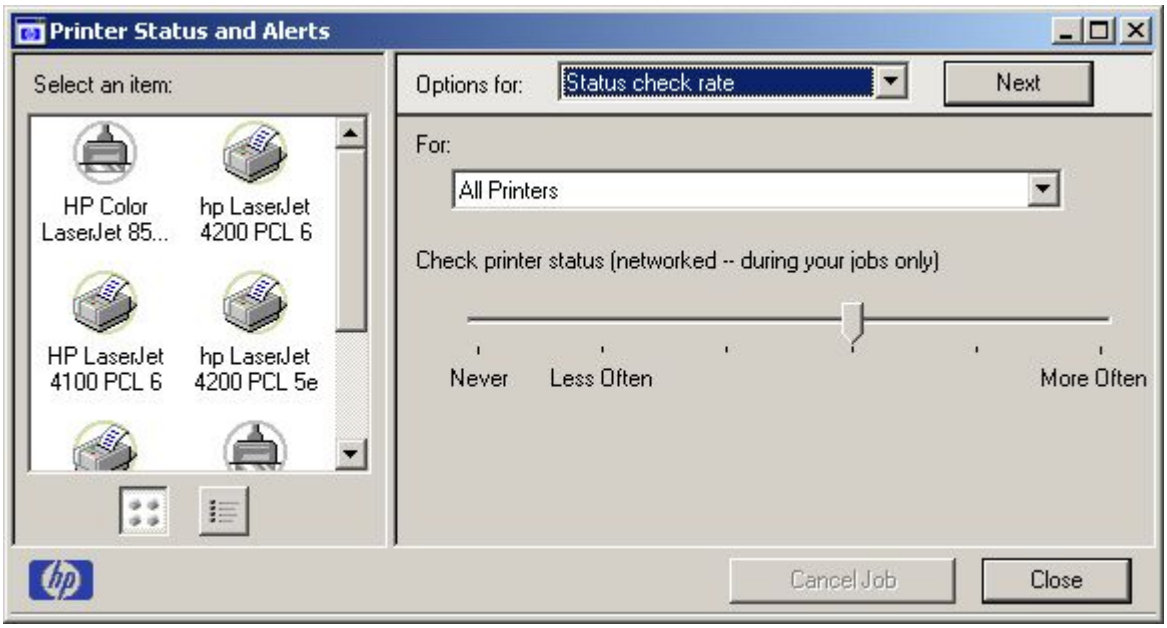
Note The appearance on the screen varies according to the HP LaserJet printer and its configuration.

The Printer Status and Alerts window consists of two panes. The left pane shows icons for the available printers, an icon for each current print job in progress, and an **Options** icon. The right pane provides information based on what is selected in the left pane. The buttons at the top can be used to perform the following functions:

- **Left arrow**: Return to the previous pane.
- **Right arrow**: Go to the next pane.
- **Circular arrows**: Refresh the pane.
- **Home**: Return to the device status.
- **Clock face**: Show print-job history.

Click a printer icon in the left pane to view information about the printer and supplies or to view a history of recent print jobs. The following printer information is available:

- **Device Status** indicates the current status of the HP LaserJet 4200 or 4300 series printer.
- **Supplies** shows information about the percentage of print-cartridge life remaining.
- **Media** provides information about paper-handling devices and the status of each device. For example, this section of the window shows the level of media present in each input device, as well as the status of output devices. This section also provides information about the type and size of media loaded in each input device.
- **Capabilities** provides information about such things as installed trays, paper-handling devices, and disk storage. Also listed are DIMM slots, the printer serial number, and the firmware date code. Click a print job icon to see information about the progress and status of the print job. Click the **Options** icon to select options for configuring pop-up status windows that contain document alerts and to set the refresh rate for showing printer status information.



There are six settings for the refresh rate. The default setting is halfway between **Less Often** and **More Often**.

The **Less Often** setting specifies the least frequent update intervals, which have minimal impact on network traffic. The **More Often** setting updates the status more frequently, but also has the most impact on traffic. The **Never** setting disables the job-status monitoring mechanism for the selected printer. If the refresh rate for a given printer is set to **Never**, then subsequent jobs sent to that printer will not appear in the Printer Status and Alerts window. If the **Never** setting is selected when the scope control is set to **All Printers,** then all job-status monitoring will be disabled. However, even when job-status monitoring is disabled, you can still open the status window and view the printer status panels.

Changes to the refresh rate settings affect any subsequent jobs submitted to the affected printer. Existing jobs that are already being processed have a fixed refresh rate which was determined (according to the setting in the Refresh Rate panel) when the job was submitted.

Refresh-rate intervals for direct-connect printers are as follows:

- Less Often setting: 5 minutes
- One setting to the right of Less Often: 2 minutes
- Two settings to the right of Less Often: 1 minute
- Three settings to the right of Less Often: 30 seconds
- More Often setting: 10 seconds

On network printers, the refresh-rate interval changes, depending on the stage of the print job.

The Alerts options panel has controls to determine when the Printer Status and Alerts window automatically appears for each printer that has an icon in the left pane. The drop-down menu provides a list of available printers for which to make the selection. An option for all printers is included as the default selection. Each of the three, four, or five available selections, depending on the printer connection type, causes the Printer Status and Alerts window to automatically appear when that alert condition arises.

The availability of each alert option and the default selection varies depending on connection type. The following table shows the default state of the alerts panel as it relates to connection type.

Table 4: Default alerts selection state for connection type

Connection type	Alerts (first two options)	Printer warning condition	Toner low	Printer error condition
All printers	Selected and activated[1]	Selected and activated	Selected and activated	Selected and activated
Direct connect	Selected and activated	Selected and activated	Selected and activated	Selected and activated
Network	Selected and activated	Selected and activated	Unselected and grayed out	Selected and activated

[1]"Activated" means that the option is available; "selected" means that the option is selected by default.

Printers that are involved with at least one active print job are queried for job status periodically according to the **Status Check Rate** setting. If an error or a warning condition is detected, the Printer Status and Alerts window will automatically appear according to the **Alerts** options.

Note Depending upon the options you select, information in the status window changes for each job printed, each job completed, and each warning condition detected.

Printer Status and Alerts
Select an item:
HP Color LaserJet 85...
hp LaserJet 4200 PCL 6
HP LaserJet 4100 PCL 6
hp LaserJet 4200 PCL 5e
Options for:
Alerts
Next
For:
All Printers
Display the status window when:
you send a new job to the printer (network printers only)
your job is finished printing (network printers only)
printer has problem but can print
printer is low on toner (direct-connect printers only)
printer cannot print
(For network printers, notifications are for your jobs only.)
Cancel Job
Close

The .EXE file consists of a readme file and the .RFU file.

Downloading the new firmware to the printer

You can send an .RFU update to a printer as long as the printer is in "ready" state; the printer will wait for all input/output (I/O) channels to become idle before performing the update.

Note The firmware update involves a change in the format of nonvolatile random-access memory (NVRAM). Any menu settings changed from the default settings will return to default settings, and must be changed again if the user wants settings different from the defaults. Examples of settings affected in this way are tray types, default symbol sets, and Web access alerts.

The elapsed time for an update depends on the I/O transfer time, as well as the time that it takes for the printer to reinitialize. The I/O transfer time depends on a number of things, including the speed of the host computer sending the update, the I/O method (Fast InfraRed Connect [FIR], parallel, or network). The reinitialization time will depend on the specific hardware configuration of the printer, such as the number of EIO devices installed, the presence of external paper-handling devices, and the amount of memory installed.

If the remote firmware update process is interrupted before the firmware is downloaded (while RECEIVING UPGRADE appears on the control-panel display), the firmware file must be resent. If power is lost during the flash DIMM update (while UPGRADING PRINTER appears on the control-panel display), the update is interrupted and the message RESEND UPGRADE appears (in English only) on the control-panel display. The update must now be sent only by a computer that is attached to the parallel port of the printer.

Finally, any print jobs ahead of the .RFU job in the queue will be printed before the update is processed.

Note The printer automatically power cycles after processing the update.

Use one of the following methods to update your printer.

Remote firmware update through a local Windows port

Windows 95, Windows 98, and Windows Me

If the printer is connected through a local port (USB or parallel), then the .RFU file can be sent directly to the printer with a COPY command from a command prompt or MS-DOS (R) window. At the command prompt, perform the following steps for your operating system.

From a command prompt or MS-DOS window type the following command:

Mode lpt1:,,p

Then press ENTER on the keyboard.

Note If the printer is attached to a parallel port other than LPT1, then substitute the proper LPT port number in the Mode command.

The response you receive should be similar to these examples:

> LPT1 Not Rerouted

> Infinite retry on parallel printer time-out

Windows 95, 98, Me, NT 4.0, 2000, and XP

The .RFU file can be sent directly to the printer with a COPY command from a command prompt or MS-DOS window:

copy /b FILENAME PORTNAME

where FILENAME is the name of the .RFU file and PORTNAME is the name of the appropriate printer port (such as LPT 1).

Remote firmware update through a Windows network

Remote firmware update using FTP and a browser

Table 5: Update messages

Printer message	Explanation
RECEIVING UPGRADE	This message appears from the time the printer recognizes the beginning of an .RFU update until the time the printer has verified the validity and integrity of the .RFU update.
UPGRADING PRINTER	This message appears while the printer is actually reprogramming the firmware.
WAIT FOR PRINTER TO REINITIALIZE	This message appears from the time the printer has finished reprogramming the DIMM until the printer reinitializes.

Note To verify that the firmware update succeeded, print a new configuration page from the printer control panel and verify that the firmware datecode shown on the configuration page has changed.

Troubleshooting a firmware update

The following table lists causes and results of possible interruptions to the firmware update.

Table 6: Troubleshooting a firmware update

Cause	Result
The job was cancelled from the printer control panel.	No update has occurred .
A break in the I/O stream occurred during send (for example, the parallel cable was removed).	No update has occurred.
A power cycle occurred during RECEIVING UPGRADE.	No update has occurred.
A power cycle occurred during UPGRADING PRINTER.	No update has occurred. Resend update through parallel port.
A power cycle occurred during WAIT FOR PRINTER TO REINITIALIZE.	The update has been completed.

Print jobs sent to the printer while an update is in process do not interrupt the update.

The following table lists possible reasons for the failure of a remote firmware update and the corrective action to take for each situation.

Table 7: Troubleshooting a firmware update failure

Reason for firmware update failure	Corrective action
The .RFU file is corrupted.	The printer recognizes that the file is corrupted and rejects the update. Download the image from the **http://www.hp.com/go/lj4200_firmware** or **http://www.hp.com/go/lj4300_firmware** Web site again and send the new file to the printer.
The wrong printer model is contained in the .RFU file.	The printer recognizes the model mismatch and rejects the update. Download the correct image from the **http://www.hp.com/go/lj4200_firmware** or **http://www.hp.com/go/lj4300_firmware** Web site and send it to the printer.
The upgrade was interrupted.	See the Troubleshooting a firmware update table.
Flash hardware failure occurred.	Although it is extremely unlikely, the device might have a hardware failure. Call technical support to address the problem.

Note All HP LaserJet printers leave the factory with the latest available firmware version installed. If a remote firmware update fails, the .RFU file must be sent over a parallel port connection.

E-mail command and response

Printing-system components

Register Product - This option can be used to register your HP LaserJet 4200 or 4300 series printer now and to receive the following information at no cost:

- notification of driver updates
- technical support updates
- news about emerging technologies

View Documentation - This option can be used to view the HP LaserJet 4200 and 4300 series printers documentation. The following document options are available:

- Readme
- User's Guide
- HP Jetdirect Guide
- Release Notes

Note For systems that do not have Adobe Acrobat Reader 4.0 (or later) installed, you will be given the option to download that software. Clicking any of the links to documentation that is provided in the Adobe Acrobat PDF file format opens a dialog box from which you can install Adobe Acrobat Reader software from the HP LaserJet 4200 and 4300 software CD-ROMs.

Customization Utility - This utility can be used to create a custom software installer for the HP LaserJet 4200 and 4300 series printers that can then be copied to other media, such as a local hard drive or a network drive.

Optional Software - To increase productivity and get the most out of your HP LaserJet 4200 or 4300 series printer, view a list of optional software available for installation. The **HP Web Jetadmin** option is available for the HP LaserJet 4200 and 4300 series printers.

Installer features

The common installer is designed to provide a simple and consistent installation method for the product line. The common installer is available for the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, and Windows XP operating systems.

The common installer offers the following features:

- The HP LaserJet 4200 and 4300 software CD-ROM features an interactive software interface. See "HP LaserJet 4200 and 4300 software CD-ROMs for Windows systems."
- Acrobat Reader 5.0 is automatically installed (Acrobat Reader 4.05 is installed for languages that read from right to left).
- The installer is Web-enabled, providing access to the HP Web site for the latest software components and drivers.
- Network connection is integrated so that you can install drivers and connect to a network printer in a single process.
- The selection dialog box sets the operating-system language as the default language (for Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, and Windows XP only). You can use the installer to select any of the languages on the HP LaserJet software CD.
- The installer includes the HP LaserJet Uninstaller Utility.
- Product registration is available using the Web and e-mail.
- The Customization Utility is available on the HP LaserJet 4200 and 4300 software CD-ROMs.

All of the Windows system components are installed by using the HP LaserJet printing-system installer. The installer automatically senses your language of choice and your operating system. It offers selections for each printer model. You can select the type of installation you prefer: Typical Installation or Custom Installation.

When performing a Web installation, the installer compares the versions of the software components on the HP LaserJet software CD-ROM to those on the HP Web site. If newer versions are on the HP Web site, the installer downloads them.

Installable components

- LIBRARY/PRINTERS/PPDS/CONTENTS/RESOURCES/LANGUAGE.LPROJ (for Mac OS X).
- the HP LaserJet Utility, an HP printer utility that is installed in the HP LaserJet folder of Mac OS 8 and Mac OS 9. It provides configuration and management support for PS and PCL printers.
- online Help, an HTML-based printer and utility help that can be viewed through a browser or in the Macintosh OS Help Center.
- the HP Auto Setup Utility, installed in the Startup Items folder of Mac OS 8 and later versions. It provides assistance to set up the new printer, then moves itself to Trash.
- installation notes.

Additional driver availability

Additional drivers are available from your Hewlett-Packard distributor or from the Web site.

These drivers are:

- OS/2 PCL 5e, OS/2 PS, and OS/2 PCL 6 printer drivers. The OS/2 drivers are available from IBM and are packaged with OS/2.
- UNIX model scripts. Go to http://www.hp.com/support/net_printing, and then select **hp printer installation software** for further information about UNIX drivers.
- Linux drivers. Go to **http://www.hp.com/go/linux** for further information about Linux drivers for HP LaserJet printers, or to **http://hp.sourceforge.net** (HP Linux support home page).

Macintosh components

- HP LaserJet PPDs for past projects
- Screen fonts

Additional productivity tools

HP Web Registration

You can use this component to register your HP LaserJet printer on the HP Web site or through e-mail. After you have successfully installed the software, the installer prompts you to register your HP LaserJet printer. Also, you can gain access to HP Web Registration from the HP LaserJet 4200 and 4300 software CD-ROMs by clicking **Register Product**. You can choose to complete the online registration at that time or later. If you want to register your printer later, click **Register Product** from the HP LaserJet program group when you decide to complete your registration.

Optional software

The HP LaserJet 4200 and 4300 software CD-ROMs provide links to download and install HP Web JetAdmin as optional software.

HP Web JetAdmin

Use HP Web JetAdmin to manage HP Jetdirect connected printers within your intranet by using a browser. HP Web JetAdmin is a browser-based management tool and should be installed only on the network administrator's computer.

When it is installed on a host server, any client can use HP Web JetAdmin through a supported Web browser (such as Microsoft Internet Explorer 4.*x* or later, or Netscape Navigator 4.*x* or later) by browsing to the HP Web JetAdmin host. HP Web JetAdmin 6.2 and later have the following features:

- task-oriented user interface, providing configurable views for network managers
- customizable user profiles that can be customized to let network administrators include only the function that is being viewed or used
- routing of instant e-mail notification of hardware failure, low supplies, and other printer problems to different people
- remote installation and management from anywhere by using only a standard Web browser

- advanced automatic discovery of peripherals on the network without manually typing information about each printer into a database
- simple integration into enterprise-management packages
- capacity to find peripherals based on parameters such as the Internet protocol (IP) address, color capability, and model name
- capacity to organize peripherals into logical groups, with an option that provides virtual office maps for easy navigation

HP Web JetAdmin can be used for access to HP Web Access (the embedded Web server), ordering supplies, and remote firmware updates.

The HP LaserJet 4200 and 4300 software CD-ROMs provide a link to the HP Web site (**http://www.hp.com/go/webjetadmin**) to download the latest version of the HP Web JetAdmin software. Click **Optional Software** from the CD-ROM browser, and then click **HP Web JetAdmin**. HP Web JetAdmin is available for the following network operating environments:

- Microsoft Windows 2000
- Microsoft Windows NT 4.0
- Red Hat Linux 7.1
- SuSE Linux 7.1

3 Driver features

Whenever a constraint message appears with the **OK** or **Cancel** button, the interpretation of the button is as follows:

- Clicking **OK** accepts the change that was just made, and the driver then resets the conflicting control to a setting that is compatible with the new value.
- Clicking **Cancel** rejects the change that was just made, returning the control to its previous value.

Bubble Help

Condition	Effect	Message
Finishing tab: **Pages per Sheet** is greater than 1	**Effects** tab: **Print Document On** is not available.	To use this feature, set **Pages per Sheet** to 1.
Finishing tab: **Pages per Sheet** is greater than 1	**Effects** tab: **% of Normal Size** is not available.	To use this feature, set **Pages per Sheet** to 1.
Finishing tab: **Booklet Printing** setting is any setting except **Off**.	**Finishing** tab: **Pages per Sheet** is not available.	To use this feature, set the **Booklet Printing** option to **Off**.
Finishing tab: **Booklet Printing** setting is any setting except **Off**.	**Effects** tab: **Print Document On** is not available.	To use this feature, set the **Booklet Printing** option to **Off**.
Finishing tab: **Booklet Printing** setting is any setting except **Off**.	**Effects** tab: **% of Normal Size** is not available.	To use this feature, set the **Booklet Printing** option to **Off**.
Effects tab: The **Print Document On** check box is selected.	**Effects** tab: **% of Normal Size** is not available.	To use this feature, turn off the **Print Document On** option.
Effects tab: The **Print Document On** check box is selected.	**Paper** tab: A Help bubble points to **Size Is**.	Although your document will be formatted for the paper size indicated, it will be printed on the paper size specified on the **Effects** tab.
Effects tab: The **Print Document On** check box is selected.	**Finishing** tab: **Pages per Sheet** is not available.	To use this feature, turn off the **Print Document On** option.
Effects tab: The **% of Normal Size** setting is any value except 100%.	**Effects** tab: **Print Document On** is not available.	To use this feature, set **% of Normal Size** to 100.
Effects tab: The **% of Normal Size** setting is any value except 100%.	**Finishing** tab: **Booklet Printing** is not available.	To use this feature, set **% of Normal Size** to 100.
Effects tab: The **% of Normal Size** setting is any value except 100%.	**Finishing** tab: **Pages per Sheet** is not available.	To use this feature, set **% of Normal Size** to 100.
Paper tab: **Type Is** setting is Transparency, Labels, or Envelope.	**Finishing** tab: Bubble Help points to the **Print on Both Sides** check box.	This feature is not available with the currently selected paper type.
Paper tab: The **Size Is** setting is for any envelope.	**Finishing** tab: Bubble Help points to the **Print on Both Sides** check box.	This feature is not available with the currently selected paper size.
Paper tab: The **Size Is** setting is for anything except Letter, Legal, or A4.	**Finishing** tab: Bubble Help points to the **Booklet Printing** drop-down menu, which is not available.	To use this feature, set the paper size to Letter, Legal or A4.
Paper tab: The **Source Is** tray in the **Other Pages** mini-tab is the same as the one defined in the **First Page** mini-tab.	**Paper** tab: Bubble Help points to **Type Is** drop-down menu.	In order to use this feature, choose a source tray that is different from tray used for the first page.
Effects tab: Number of watermarks exceeds 30.	**Effects** tab: Bubble Help points to **Watermarks**.	You cannot add a new watermark because the list is full. You can edit existing watermarks, or you can delete unused ones to make more room.
Bidirectional communication is not installed.	**Configure** tab: **Update Now** button is not available.	The configuration settings cannot be updated automatically because bidirectional communication is not available.

Condition	Effect	Message
Finishing tab: The **Print on Both Sides** check box is selected, and the **Allow Manual Duplexing** check box (on the **Configure** tab) is also selected.	**Basics** tab: Bubble Help points to the **Copies** option.	Only one copy is allowed per job for manual duplex printing. To change this feature, first disable the **Print On Both Sides** option.

Finishing tab features

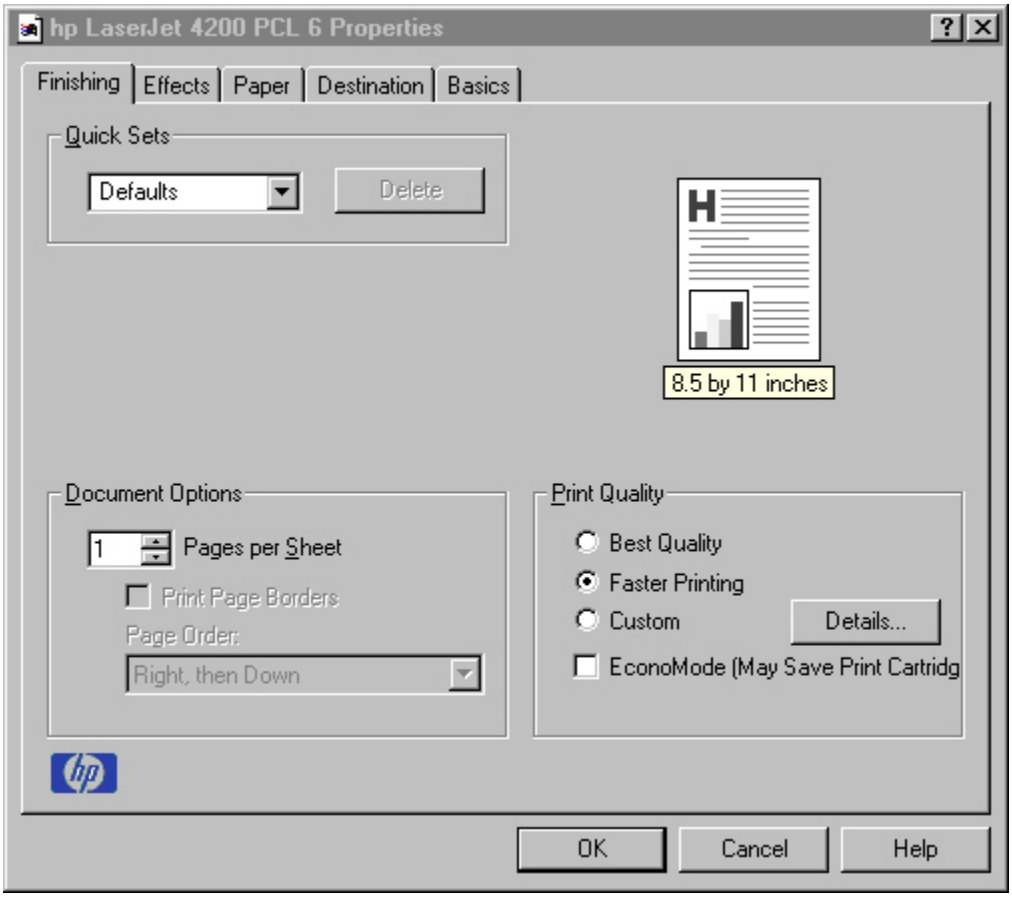


Figure 12: The default appearance of the Finishing tab

The options in the **Print Quality** group box might vary, depending on your HP LaserJet 4200 or 4300 series printer. The **Finishing** tab contains a document preview image and three group boxes:

- **Quick Sets**
- **Document Options**
- **Print Quality**

Document preview image

The preview image is a line-drawn image of a page that represents graphics and text. For color printers the bitmap contents appear in color, while for monochrome printers the contents appear in tones of gray. The image is always oriented so that the contents of the page are right-side up. The preview image appears in the upper-right corner of all properties tabs except for the **Configure** tab.

Switching between tabs does not change the location or appearance of the preview image. When you move the mouse over the preview image, the mouse cursor changes from an arrow to a gloved hand. You can toggle between portrait and landscape page orientation by clicking on the image. The light-yellow dimensions label that appears below the preview image reflects the selected page size. The horizontal dimension is always first, so the order of the numbers will reverse when the orientation changes. Click on the label to toggle between English and metric units.

Quick Sets

Quick sets is a feature that is available on all tabs (except NT Forms and Configure) and that is used to store the current combination of driver settings that are found on all other tabs (except NT Forms and Configure). Quick sets are either preset or user-defined printing specifications (such as paper size, pages per sheet, and so on).

Defaults

The default setting is **Defaults**. Other settings are **User's Manual** and **Untitled**. When **Defaults** is selected, nearly all of the settings are restored to the combination that existed after the driver was installed (the original settings). However, if the attribute combinations that are associated with watermark definitions, custom paper sizes, or the **User's Manual** quick set have been changed or deleted, the original settings are not restored.

The **Defaults** setting appears automatically if no other driver settings have been changed since the driver was installed, or if all driver settings match the original settings. Otherwise, the setting in the Quick Sets menu will be the same label that appeared when you last closed the printing **Properties** dialog box by clicking **OK**.

The following table shows the default settings for Quick Sets. See "Driver Management Configuration" (DMC) for information about preconfigurable DMC settings.

Table 9: Quick Set default values for the HP LaserJet 4200 and 4300 series printers

Driver feature	US English Quick Sets default values	Other language default setting (if different)	DMC Preconfigurable
Print on both sides	Off		Y
Flip pages up	Off		Y
Booklet printing	Off		Y
Staple	Off		Y
Pages per sheet	1		Y
Print page border	Off		Y
Page order	Right, then down		Y
Print quality	Best quality		Y
EconoMode	Off		Y
Current setting	PCL6: This is the "Faster Printing" setting	PCL5e: This is the "Best Quality" setting	N
Rendering mode [1]	Automatic		N
Resolution	PCL6: FastRes 1200	PCL5e: 600 dpi	N
REt	On	PCL5e = On	N
Scale patterns (WYSIWYG)	On	PCL5e = On	N
Print text as black	Off		Y
TrueType as bitmaps	Off -- send TrueType fonts as outlines	On[2]	Y[3]
Print document on	Off - print on size specified in Paper tab		Y
Size to print on	Letter	A4	Y
Scale to fit	On		Y
% of normal size	100		Y
Watermarks	(none)		Y[4]
Watermarks first page only	Off		Y[4]
Current watermarks	(none), Confidential, Draft, SAMPLE		Y[4]

Driver feature	US English Quick Sets default values	Other language default setting (if different)	DMC Preconfigurable
Watermark message	(none)		Y[4]
Watermark message angle	Diagonal		Y[4]
Watermark message custom angle	52		N
Watermark font name	Arial		Y [4]
Watermark font color	Gray		Y [4]
Watermark font shading	Very Light		Y[4]
Watermark font size	150		N
Watermark font style	Regular		Y[4]
Mini pages tab	All pages		N
Use different paper for first page	Off -- all pages use the same paper		N
All pages and first page size is	Letter	A4	Y
All pages and first page source is	Auto Select		Y
All pages and first page type is	Unspecified		Y
Other pages source is	Auto Select		N
Other pages type is	Unspecified		N
Back cover	No back cover		N
Back cover source is	Auto Select		N
Back cover type is	Unspecified		N
Custom width	8.50 inches	216 mm	N
Custom paper size height	11.0 inches	279 mm	N
Paper size units	Inches	Millimeters	N
Destination features	Job Storage		N
Job storage mode	Off		N
Job storage require PIN to print	Off		N
Job storage user name	User logon name[5], UNTITLED		N
Job storage job name	UNTITLED		N
Job storage PIN to print	0000		N
Output bin	Top bin (face-down)		Y
Output bin option	(none)		Y
Copies	1		Y
Orientation	Portrait		Y
Rotate by 180 degrees	Off		Y

[1] PCL 5e only

[2] Thai only

[3] N (Thai)

[4] N (Windows 95, Windows 98, and Windows Me)

[5] Windows NT 4.0 only

User's Manual

The **User's Manual** setting provides a Quick Set for optimal printing of the *HP LaserJet 4200 and 4300 User's Guide*.

Custom Quick Sets (Untitled)

When you change any of the default settings on the **Finishing** tab or any of the other tabs, the name in the **Quick Set** drop-down menu dynamically changes to **Untitled**. If you want to save this configuration as a Quick Set, highlight the word **Untitled**, type the name you want for your new Quick Set, and click **Save**. Quick sets are saved in the system registry. To delete a Quick Set, select it from the drop-down menu and click **Delete**.

You can store a maximum of 25 user-defined Quick Sets on a particular system. If you attempt to save too many, a message box appears that reads, "There are too many Quick Sets defined. Please delete some before adding new ones."

Document Options

The **Booklet Printing** drop-down menu appears only when:

- **Print on Both Sides** is selected.
- **% of Normal Size** (on the **Effects** tab) is 100.
- **Pages per Sheet** is 1.
- **Print Document On** (on the **Effects** tab) is not selected.

If any except the first of these conditions is not met, a Bubble Help appears next to **Booklet Printing** to tell you why it is disabled.

Activating booklet printing

Note The following instructions apply only to PCL drivers. The PostScript (PS) driver supports booklet printing through Windows programs that provide booklet-printing configuration settings.

1 Click **File**, click **Print**, and then click **Properties**.

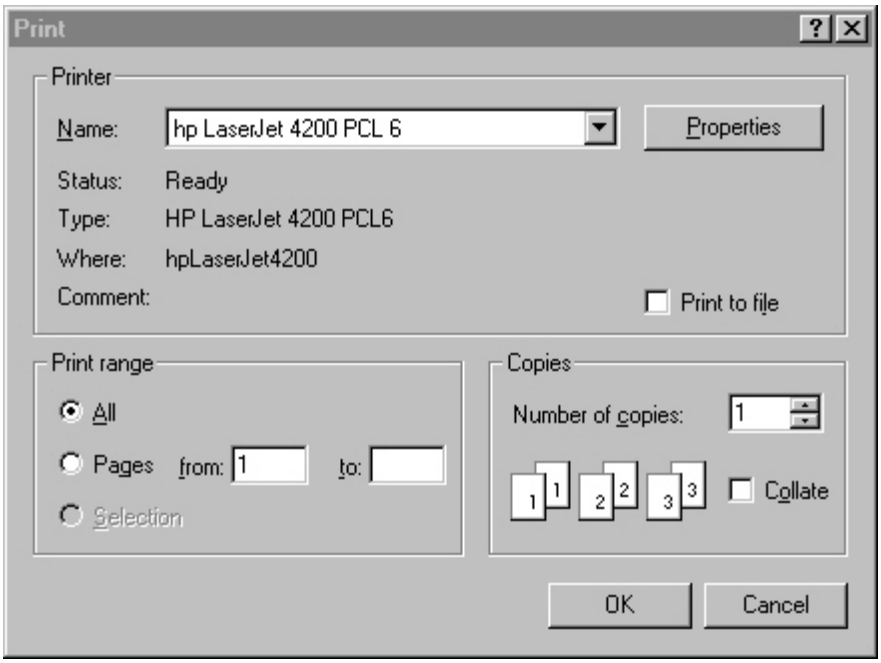
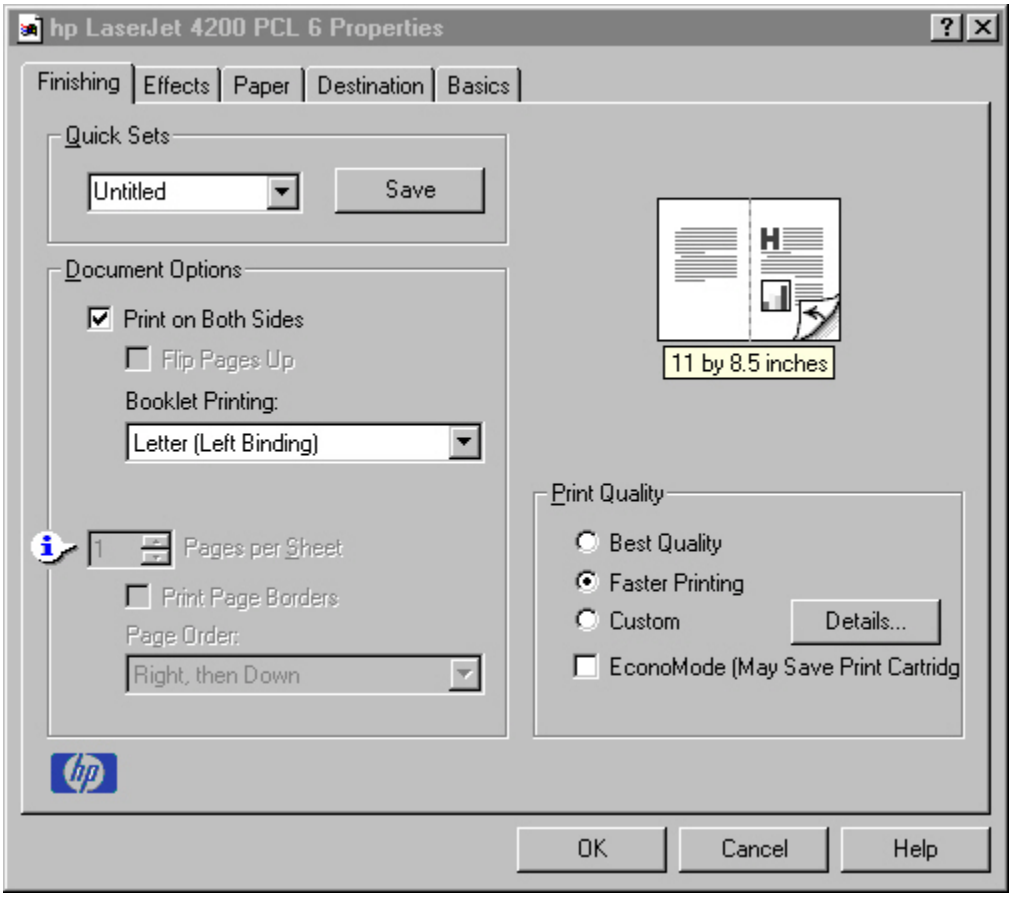


Figure 13: Activating booklet printing

2 Click the **Finishing** tab. On the drop-down menu, select **Print on Both Sides**.

3 In the **Booklet Printing** drop-down menu, select the type of booklet printing that you want. The booklet printing type consists of the media size and the location of the binding (for example, Letter [Left binding]).


hp LaserJet 4200 PCL 6 Properties
Finishing
Effects
Paper
Destination
Basics
Quick Sets
Untitled
Save
Document Options
Print on Both Sides
Flip Pages Up
Booklet Printing:
Letter (Left Binding)
1
Pages per Sheet
Print Page Borders
Page Order:
Right, then Down
11 by 8.5 inches
Print Quality
Best Quality
Faster Printing
Custom
Details...
EconoMode (May Save Print Cartridg
OK
Cancel
Help

Pages per Sheet

The **Pages per Sheet** drop-down menu provides six settings: 1 (default), 2, 4, 6, 9, and 16. If you type another value into the box (for example, 3), the control will round the value entered to the nearest valid value (in this example, 4).

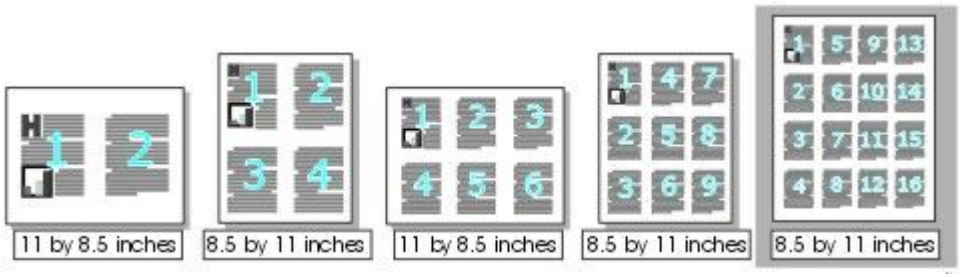
Related controls indented beneath the **Pages per Sheet** edit box are **Print Page Borders** and **Page Order**, which become active when **Pages Per Sheet** is greater than 1.

Print Page Borders sets a line around each page image on a printed sheet to help visually define the borders of each logical page.

The **Page Order** drop-down menu contains four selections:

- **Right, then Down**
- **Down, then Right**
- **Left, then Down**
- **Down, then Left**

The preview document image changes to reflect alterations in these settings, as shown by the examples in the following illustration.



Print Quality

The HP LaserJet printer driver **Print Quality** group box provides options that control resolution, graphics settings, and font settings.

The **Print Quality** group box also includes a **Details** button. Clicking this button opens the dialog box. The **Print Quality Details** dialog box provides options for various print-quality settings, as shown in the following illustration.

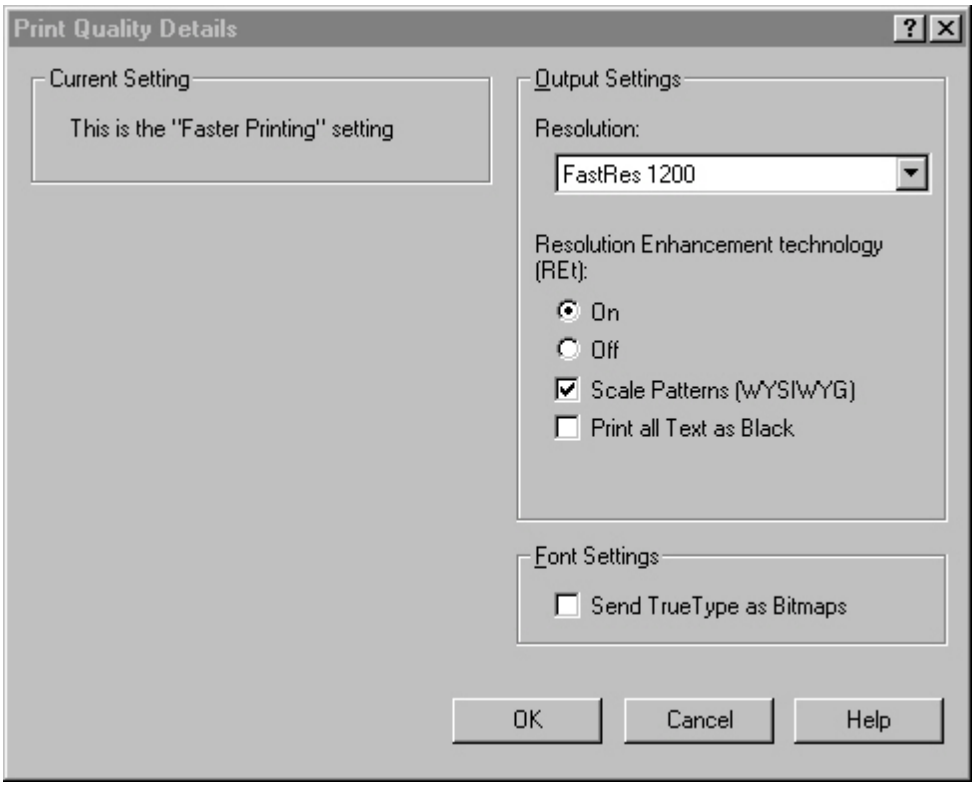


Figure 16: Print Quality Details

Default

For the HP LaserJet PCL 6 and PCL 5e drivers, the Default mode contains the following options:

- Resolution is FastRes 1200
- **Rendering mode is automatic** (PCL 5e only)
- **Scale Patterns** (WYSIWYG) is selected
- **Print all Text as Black** is **not** selected
- **Send TrueType as Bitmaps** is **not** selected
- Resolution Enhancement technology (REt) is on

Output Settings group box

The **Output Settings** group box contains controls for selecting resolution and other print-job settings, including pattern scaling and printing all text as black.

Resolution

The resolution setting for the HP LaserJet 4200 and 4300 series printers is 600 dpi.

Scale Patterns (WYSIWYG)

The Scale Patterns (WYSIWYG) feature is implemented to address the moiré effect created when certain programs encounter certain patterns. Use this feature to turn off the pattern scaling. What you lose is WYSIWYG with patterns, but the printed result might look better. The feature works only with programs that use vector hatch patterns. This option is on by default.

Print all Text as Black

The **Print all Text as Black** feature is off by default. When selected, this option causes the driver to print all text as black regardless of the original document text color. By design, however, white text remains white, as a fail-safe method of printing reverse typeface against a dark background. This setting does not affect graphic images on the page. **Print all Text as Black** remains selected only for the current print job. When the current print job is completed, **Print all Text as Black** is automatically turned off.

Font Settings group box

In the **Font Settings** group box, the only available option is **Send TrueType as Bitmaps**, which provides a safety net for programs that cannot easily use TrueType (TM) fonts for special graphic purposes, such as shading, rotation, or slanting.

EconoMode

Use the **EconoMode** check box to turn this toner-saving feature on and off independently of the other **Print Quality** tab settings. When this check box is selected, the preview image lightens to show the expected appearance of the printed page when this feature is applied. The option is off by default.

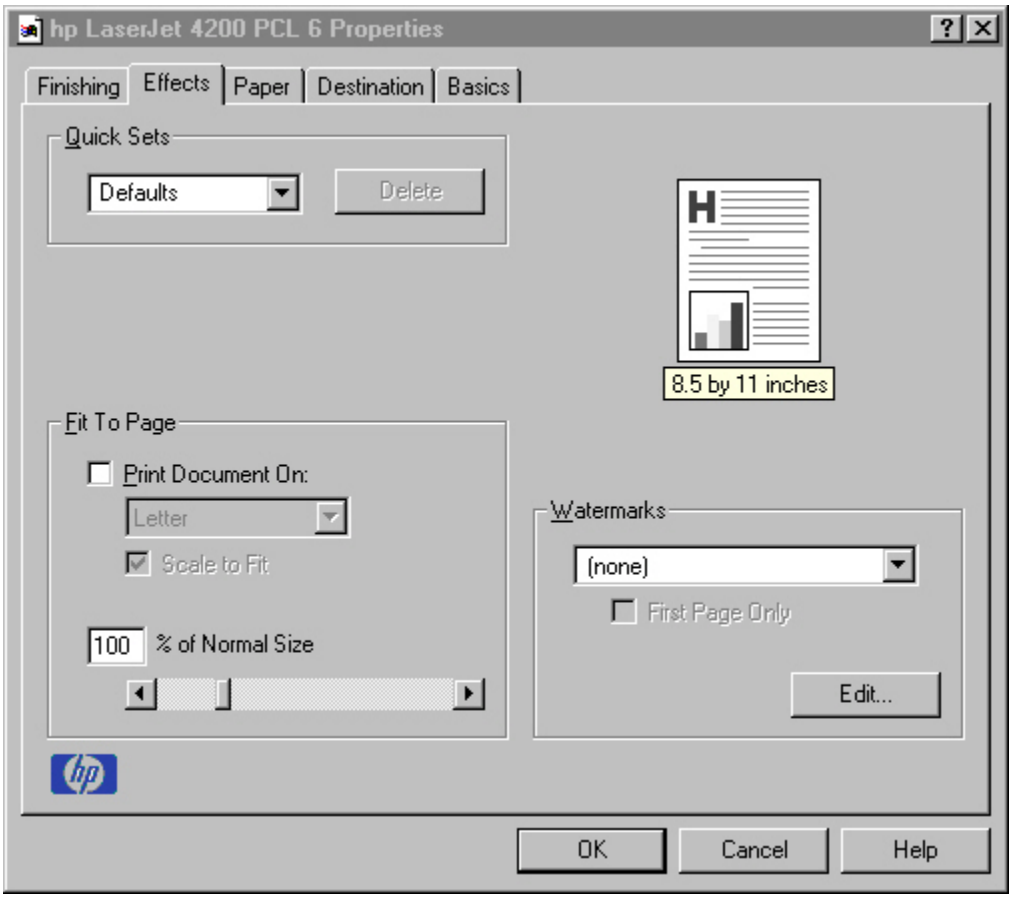
The **EconoMode** option can also be activated from the printer control panel. The **EconoMode** setting on the **Print Quality** tab (on or off) overrides the setting on the printer control-panel display, as shown on the following table. If an HP cartridge is not used, EconoMode is not available, regardless of the driver or control-panel setting.

Table 11: EconoMode Settings

Default	Driver setting for print job	HP cartridge	Front panel reports	Actual result for print job
ON	ON	Yes	ON	ON
ON	ON	No	OFF	OFF
ON	OFF	Yes	ON	ON
ON	OFF	No	OFF	OFF
OFF	ON	Yes	OFF	ON
OFF	ON	No	OFF	OFF
OFF	OFF	Yes	OFF	OFF
OFF	OFF	No	OFF	OFF

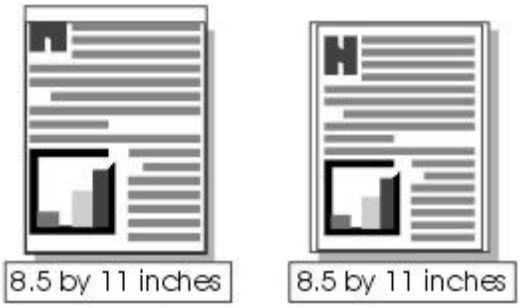
Effects tab features

Use the **Effects** tab to create unique paper effects such as scaling and watermarks.



Scale to Fit option

The **Scale to Fit** option specifies whether each formatted document page image is scaled to fit the target paper size. By default, **Scale to Fit** is selected when **Print Document On** is selected. If the setting is turned off, then the document page images will not be scaled, and are instead centered at full size on the target paper. If the document size is larger than the target paper size, then the document image is clipped. If it is smaller, then it is centered within the target paper. The following illustration shows preview images for a document formatted for legal-size paper with the **Print Document On** option selected, and the target size specified as **Letter.**

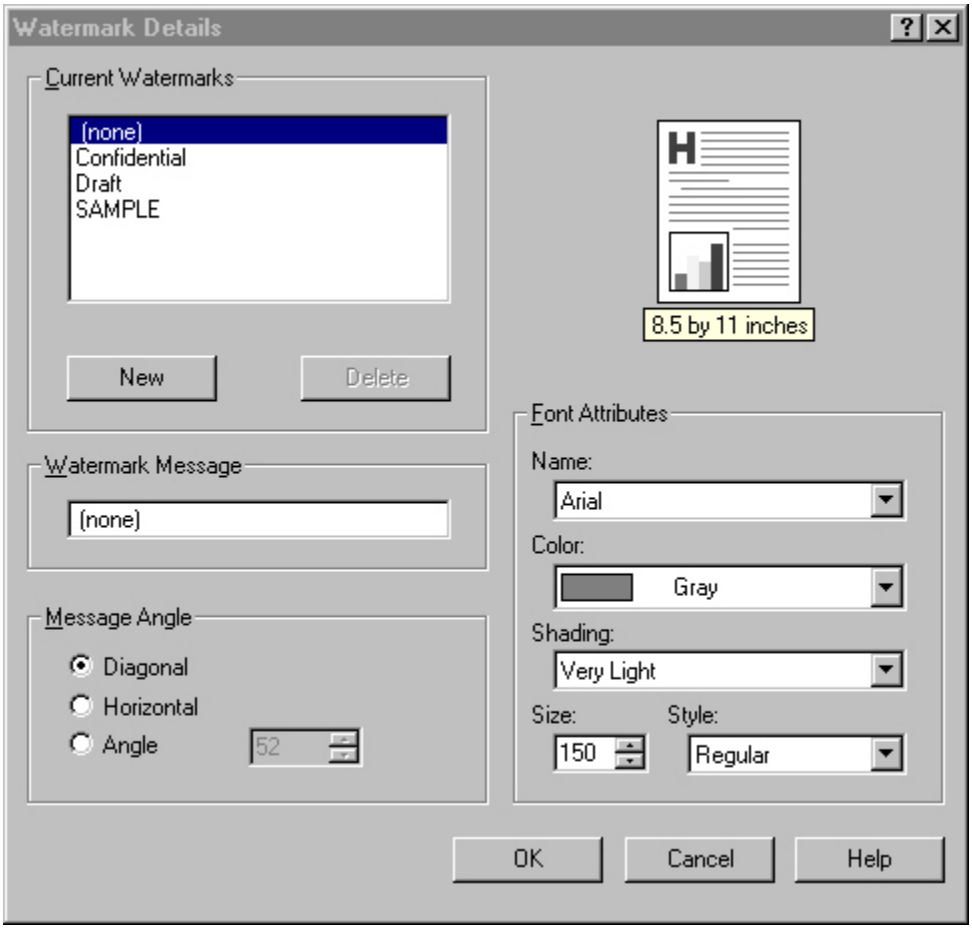


The drop-down menu shows alphabetically sorted watermarks that are currently available on the system, plus the string "(none)", which indicates that no watermark is selected. This is the default setting. Any watermark selected from this list appears in the preview image.

When **First Page Only** is selected, the watermark is printed only on the first page of the document. The **First Page Only** check box is disabled when the current watermark selection is "(none)".

Watermarks are applied to logical pages. For example, when **Pages per Sheet** is set to "4" and **First Page Only** is turned off, four watermarks appear on the physical page (one on each logical page).

Click **Edit,** and the **Watermark Details** dialog box appears.



Note You can have no more that 30 watermarks in the Current Watermarks list at one time. When the limit of 30 watermarks is reached, the New button is disabled, and a Bubble Help appears that explains why the button is disabled and how to enable it.

To edit an existing watermark, select the watermark in the **Current Watermarks** list. If you change the Watermark Message for that watermark, you are, in effect, creating a new watermark.

Watermark message

The Watermark Message is also the name that identifies the watermark in the Current Watermarks list, except when more than one watermark has the same message. For example, you might want several different watermarks with the message DRAFT, each with a different font or size. When this occurs, the string is appended with a space, a pound sign, and a number (for example, **Draft #2**). When a number is added, the number two is used first, but if the resulting name is also in the list, then the number increases until the name is unique.

Message angle

Use the controls in the **Message Angle** group box to print the watermark in a diagonal, horizontal, or angle (custom) orientation to the page's text. The default is **Diagonal**. All three settings automatically center the watermark string within the page; the selection of a particular setting affects only the angle of the string placement. **Diagonal** places the text along a line that spans the lower-left to upper-right corners of the page.

Font attributes

Use controls in the **Font Attributes** group box to change the font and the color, shading, size, and style of the font.

Name

The **Name** drop-down menu lists TrueType fonts that are currently installed on the system.

Color

The **Color** drop-down menu lists the fixed, unalterable color choices for the watermark. **Gray** is the only color option for the HP LaserJet 4200 and 4300 series printers.

Shading

The following range of shades is available from the **Shading** drop-down menu:

- **Lightest**
- **Very Light**
- **Light**
- **Medium Light**
- **Medium**
- **Medium Dark**
- **Dark**
- **Very Dark**
- **Darkest**

These values represent the intensity of the gray that is used for the Color attribute.

Size

Font sizes from 1 to 999 points are available from the **Size** menu. The default point size is language-dependent. The choice of regular, bold, italic, and bold italic is available from the **Style** drop-down menu.

Default settings

The default settings for new watermarks are **Arial** (R) font, **Gray** color, **Very Light** shading, **150points**, and **Regular** style. The default settings for preset watermarks are **Arial** font, **Gray** color, **Very Light** shading**, and Bold** style. The default point size for preset watermarks is language-dependent, and varies.

Paper tab features

Use the **Paper** tab to specify the size, type, and source of the media, as well as to define a custom paper size. If you want to, you can indicate different paper-selection choices for the first page and back cover of the document.

The first group box in the upper-left portion of the **Paper tab** view is **Quick Sets**. This feature is described in the "Finishing tab features" section. Any change to the **Quick Sets** group box that is made on the **Paper** tab affects the group box on the **Finishing** tab and on the **Destination** tab, and vice versa - they are all one and the same control.

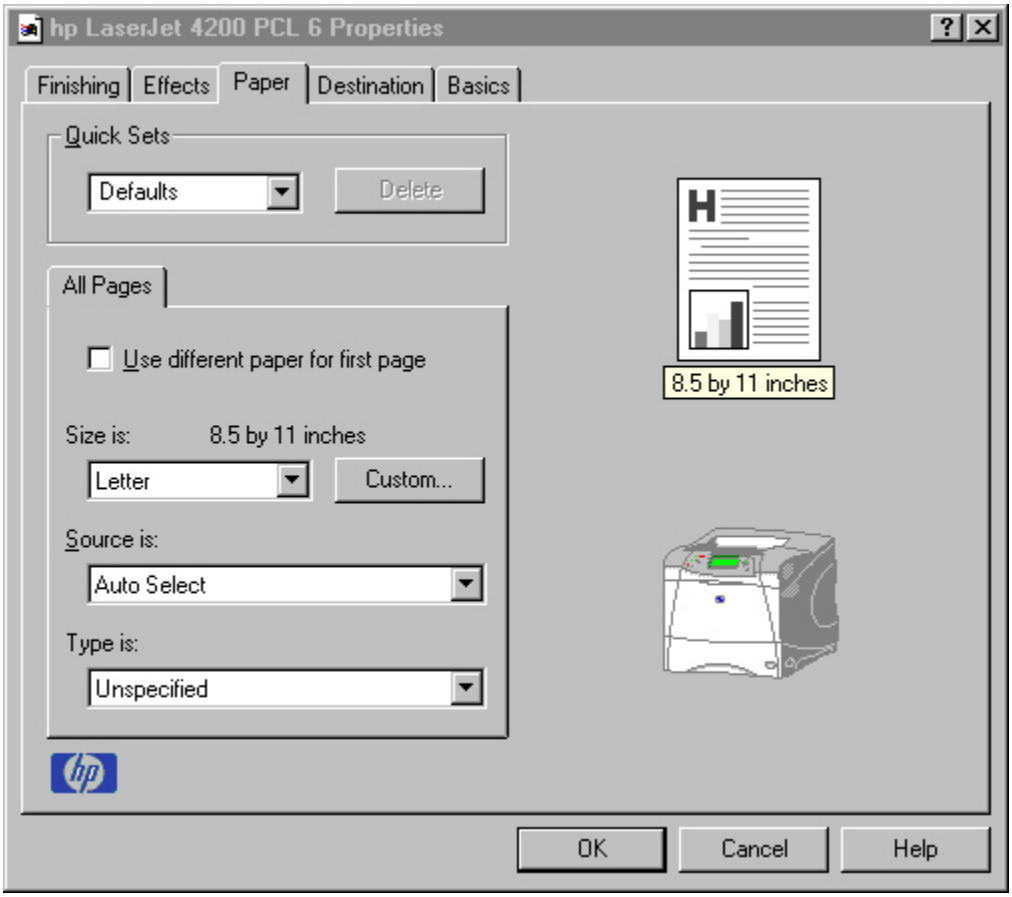
Printer image

The bitmap image in the lower-right portion of the **Paper** tab represents the current physical configuration of the printer and corresponds to its configuration data, either obtained automatically through bidirectional communication or configured manually. It should look the same as the image that appears in the same location on the **Destination** tab and the **Configure** tab.

On the **Paper** tab, the printer image contains hot spots where you can select a paper source. When the pointer moves over a hot spot, the arrow reverts to the gloved hand used in the Bubble Help, the preview image, and other areas. The current paper source, whether selected from the drop-down menu or from a printer-image hot spot, is highlighted in bright green on the printer bitmap. The following points are worth noting:

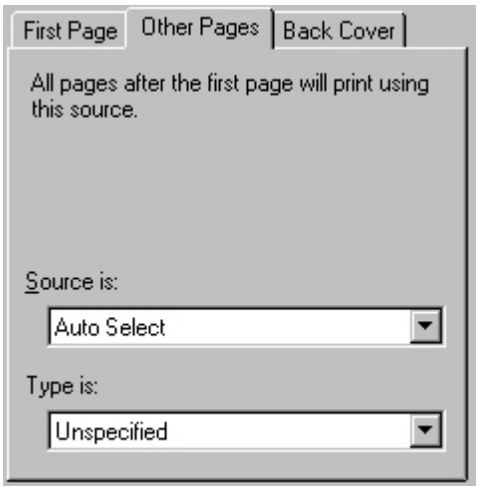
- Auto Select does not have a corresponding area to highlight in the printer image.
- Selecting **in the drop-down menu** highlights the corresponding part in the printer image.
- Selecting the area that represents tray in the bitmap always selects the corresponding tray in the Source Is option. Manual Feed, which is available from the Source is option, cannot be selected by selecting the bitmap.
- On the **Paper** tab, only input trays have printer-image hot spots and can be highlighted. Output bins must be selected from the **Destination** tab.

Note The printer image shown in the following illustration might differ from your HP LaserJet 4200 or 4300 series printer, depending on the model number and accessory devices.


hp LaserJet 4200 PCL 6 Properties
Finishing
Effects
Paper
Destination
Basics
Quick Sets
Defaults
Delete
All Pages
Use different paper for first page
Size is:
8.5 by 11 inches
Letter
Custom...
Source is:
Auto Select
Type is:
Unspecified
8.5 by 11 inches
OK
Cancel
Help

Other Pages

Use the **Other Pages** mini-tab to select an alternative media type or source for the pages that follow the first page of a document. The choices and defaults for **Source is** and **Type is** are the same as for **First Page**.



No back cover is selected as the default, with the drop-down **Source is** and **Type is** selection boxes disabled. Clicking **Use an alternate source** activates the drop-down menus. The drop-down menu value defaults to the same source as that chosen for the **First Page** mini-tab. Clicking **Use the first page source** changes the drop-down value to match the first page, if necessary, but the drop-down menus remain inactive.

When the **Back Cover mini-**tab is active, clicking **No back cover** deactivates the drop-down menus, but does not change their value. No Bubble Help is available for the inactive drop-down menus. The settings revert to defaults when **Use different paper for first page** is selected again.

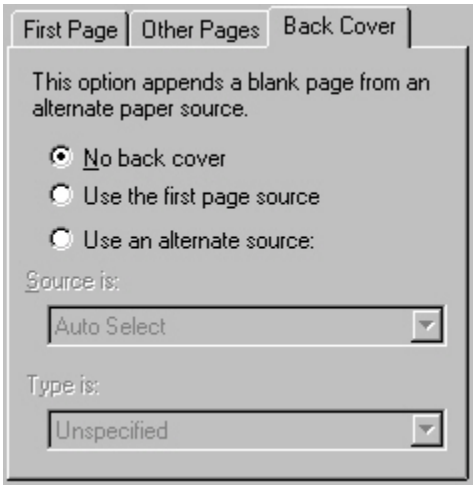


Figure 22: Back Cover mini-tab

Size is

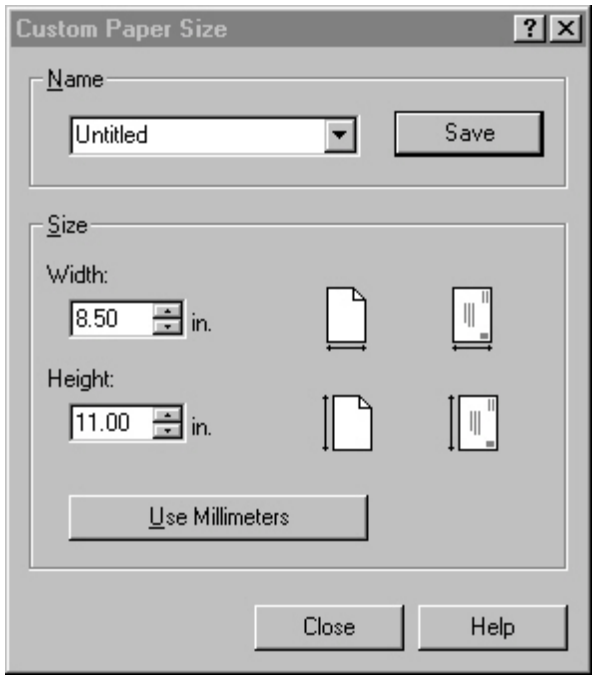
This feature actually functions as two controls: a drop-down menu that contains all the supported media sizes (including any user-defined custom sizes) and a text label that indicates the dimensions of the selected size.

Moving the pointer over the text label causes the arrow to change to a gloved hand, which indicates that the area beneath the pointer is selectable. Clicking here toggles the units of measure between inches and millimeters, offering the same options on the dimensions label in the preview image. Selecting a new size from the drop-down menu updates the media-dimensions text label as well as the preview image. Changing the orientation (on the **Basics** tab) also updates the dimensions text label.

Size can be specified only for the first page or for all pages. On the **Other Pages** and **Back Cover** mini-tabs, the **Size is**drop-down menu does not appear because the media size must be consistent for all pages of the job. Certain software programs can override this command and specify different media sizes within a single document. Any change in the media size selection causes the Booklet Printing feature to be turned off.

Custom

The **Custom Paper Size** dialog box appears when you click the **Custom** button on the **Paper** tab. The following illustration shows the initial appearance of the **Custom Paper Size** dialog box.



- If the width or height controls have been changed since a custom size was selected or saved, or if a saved paper size has just been deleted, then the **Name** drop-down menu shows the default name of Untitled.
- If a new name has been typed into the **Name** drop-down menu for the purpose of saving a new size or renaming an existing size, then that new name will remain in the drop-down menu until a saved custom paper size has been selected from the drop-down menu.

If you type a new name into the **Name** drop-down menu, but then do not click the **Save** button, you should be able to change the width and height values without losing the name. However, if a saved paper-size name is selected from the drop-down menu, any unsaved name or size values are lost without warning, and replaced by the values of the selected custom paper size.

Dynamic command button

The button located to the right of the **Name** drop-down menu has three possible labels: **Save**, **Delete**, and **Rename**.

- **Save** is the button title whenever the height and width values have been changed since the last save or since the selection of an existing custom paper size. Clicking the button causes the name in the **Name** drop-down menu to be compared against each of the saved names. If a duplicate is found, a dialog box appears, asking if it is okay to replace the existing item. If you click **Yes**, the old item is updated with the new values. If you click **No**, the driver returns to the **Custom Paper Size** dialog box, where you can type a different name. The new name is compared only against the list of user-defined custom paper names, and not against the standard paper-size names. Whenever the command button has the **Save** title, it is the default button.
- **Delete** is the button title whenever the name of an existing (previously saved) custom paper size appears in the **Name** drop-down menu, such as immediately after selecting an item from the drop-down menu or clicking the **Save** button. Clicking the **Delete** button causes the saved custom paper size to be deleted, after which the **Name** drop-down menu changes to **Untitled**, the height and width controls are unchanged, and the button title changes to **Save**.
- **Rename** is the button title when you type something into the **Name** drop-down menu after selecting an existing custom paper size from the drop-down menu. If no duplicate is found, the name of the stored custom paper size changes to match the contents of the **Name** drop-down menu. Whenever the command button has the **Rename** title, it is also the default button.

The following table illustrates the relationships between the **Name** drop-down menu, the command button, and the actions that take users from one state to another.

Table 12: Name drop-down menu text strings

State	Drop-down menu contents	Button label	Action	Next state
1	Untitled	Save	Click **Save**	3
			Type something into the **Name** drop-down menu	2
			Change the width or height values	1
			Select a saved item from the drop-down menu	3
2	<user-typed text>	Save	Click **Save**	3
			Type something into the **Name** drop-down menu	2
			Change the width or height values	2
			Select a saved item from the drop-down menu	3
3	<name of saved item>	Delete	Click **Delete**	1
			Type something into the **Name** drop-down menu	4
			Change the width or height values	1
			Select a saved item from the drop-down menu	3
4	<user-typed text>	Rename	Click **Rename**(when the name is unique)	3
			Click **Rename** (when the name is a duplicate)	4
			Type something into the **Name** drop-down menu	4
			Change the width or height values	2
			Select a saved item from the drop-down menu	3

Width and height controls

The width and height values can be changed either by typing numeric strings into the edit boxes, or by using the up and down arrows.

Any entry that is greater than the maximum limits of the width and height control is rounded down to the maximum valid entry, while any entry that is smaller than the minimum limits of the width and height control is rounded up to the minimum valid entry. See "Custom width and height control limits."

If units are in millimeters, the custom paper-size range minimum is the limit rounded up to the nearest whole millimeter. The custom paper-size range maximum is the limit rounded down to the nearest whole millimeter. Any non-numerical entry reverts to the last valid entry. Width and height entries are validated when the focus has changed.

The resolution of each control is one millimeter or one-tenth of an inch, depending on the current measurement units. Clicking the up and down arrows increases or decreases the current value by the increment amount (within the allowed range of values). The computer determines the rate at which the values change.

Unit indicator labels change dynamically to indicate inches or millimeters, depending on the measurement units the driver is currently using. To change measurement units, click the **Measurement Units** button.

Custom width and height control limits

The minimum paper size for the HP LaserJet 4200 and 4300 series printers is 98 mm by 191 mm (3.87 inches by 7.5 inches) and the maximum is 216 mm by 356 mm (8.5 inches by 14.0 inches). The following table summarizes paper size limits for each paper-handling device.

Table 13: Custom width and height limits for the HP LaserJet 4200 and 4300 series printers

Media source or paper-handling accessory	Minimum size - width by height	Maximum size - width by height
Tray 1 (multipurpose)	98 mm by 191 mm (3.9 inches by 7.5 inches)	312 mm by 470 mm (12.28 inches by 18.46 inches)
Tray 2	148 mm by 210 mm (3.9 inches by 7.5 inches)	297 mm by 432 mm (11.7 inches by 17.0 inches)
Tray 3	148 mm by 210 mm (3.9 inches by 7.5 inches)	297 mm by 432 mm (11.7 inches by 17.0 inches)
Duplex printing accessory	98 mm by 191 mm (3.9 inches by 7.5 inches)	312 mm by 470 mm (12.28 inches by 18.46 inches)
500-sheet stapler/stacker face-up bin	98 mm by 191 mm (3.9 inches by 7.5 inches)	312 mm by 470 mm (12.28 inches by 18.46 inches)
1,500-sheet stapler/stacker face-down bin	148 mm by 210 mm (3.9 inches by 7.5 inches)	312 mm by 470 mm (12.28 inches by 18.46 inches)
Tray 4	148 mm by 210 mm (3.9 inches by 7.5 inches)	297 mm by 432 mm (11.7 inches by 17.0 inches)

Paper and envelope icons

The paper and envelope icons visually define width and height.

Measurement Units button

Like the dynamic command button previously described, the **Measurement Units** button is also multititled, although its function is always to toggle the unit of measurement between standard (inches) and metric (millimeters) units of measurement.

Close button

The **Close** button closes the **Custom Paper Size** dialog box according to the logic in the following table. In all cases, any custom paper sizes that are successfully saved (and not renamed or deleted) while the dialog box is open will remain in the paper size list in the **Paper** tab. The following table lists options that appear when you click the **Close** button.

Table 14: Close dialog box text strings

If the drop-down menu contains ...	And the button says ...	Then this happens when the Close button is clicked
Untitled	Save	The dialog box closes, but you lose the changes that were not saved. The current paper size remains the same as it was when the **Custom** button was selected.
<user-typed text>	Save	The dialog box closes, but you lose the changes that were not saved. The current paper size remains the same as it was when the **Custom** button was selected.
<name of saved item>	Delete	The dialog box closes, and the current paper size is set to that which was last shown in the drop-down menu.
<user-typed text>	Rename	The dialog box closes, but you lose the changes that were not saved. The current paper size remains the same as it was when the **Custom** button was selected.

query occurs. If bidirectional communication is enabled, then the information returned is an updated list of paper types. If bidirectional communication is not enabled, then the driver looks for custom paper types saved from a previous bidirectional communication query, and uses those. Otherwise, no custom paper types are available through the driver.

The following standard types appear in the lists:

- Bond
- Cardstock
- Color
- Labels
- Letterhead
- Plain
- Preprinted
- Prepunched
- Recycled
- Rough
- Transparency
- Unspecified
- Envelope

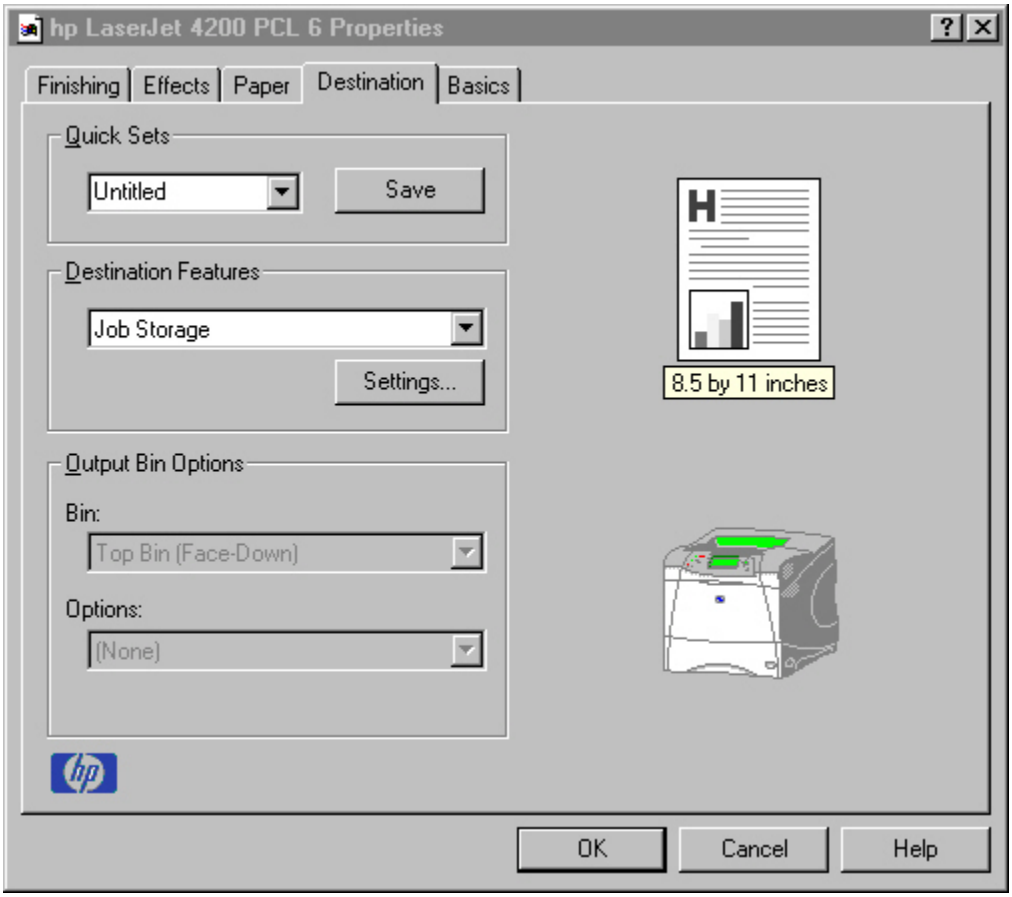
For more information about media types and sizes, see "Media attributes".

Printer image

The bitmap image in the lower-right portion of the **Paper** tab screen represents the current physical configuration of the printer according to the driver configuration data (obtained automatically through bidirectional communication, or configured manually through the driver). It should have the same appearance as the image in the same location on the **Destination** tab and the **Configure** tab.

On the **Paper** tab, the printer image contains hot spots for selecting a media source. When the pointer moves over a hot spot, the arrow reverts to the gloved hand used in the Bubble Help, the preview image, and other areas. The current media source is highlighted in a bright green color on the printer bitmap.

Destination tab features


hp LaserJet 4200 PCL 6 Properties
Finishing
Effects
Paper
Destination
Basics
Quick Sets
Untitled
Save
Destination Features
Job Storage
Settings...
Output Bin Options
Bin:
Top Bin (Face-Down)
Options:
(None)
H
8.5 by 11 inches
OK
Cancel
Help

3. Right-click the printer icon. This opens a drop-down menu.
4. Click **Properties**. The **Properties** dialog box appears.
5. Click the **Configure** tab.
6. Under **Other Options**, click **More**.
7. Under **Storage**, click the **Printer Hard Disk** check box. (This also selects **Job Storage Enabled)**.
8. Close all of the dialog boxes by clicking **OK**.
9. Your PCL printer driver is now configured to use the hard-disk and Job Storage features of your HP LaserJet 4200 or 4300 series printer.

Job Storage modes

Using the **Job Storage** feature on the HP LaserJet 4200 and 4300 series printers, you can store documents at the printer and then control the printing of these documents at the printer control panel. This feature is intended to provide greater flexibility, convenience, security, and cost savings.

After the Job Storage feature has been enabled, you can use its features by clicking **Settings** on the **Destination** tab of the printer driver.

The HP LaserJet 4200 and 4300 series printers offer the following **Job Storage** options.

Off

This option turns the Job Storage feature off (it is disabled), which means that the print job will not be stored in the printer.

Quick Copy

Quick Copy stores a copy of a printed job on the hard disk, after which you can print additional copies of a print job at the control panel. The number of quick-copy print jobs that can be stored in the printer is set from the printer control panel.

Note

The printer configuration can be set to hold a maximum of 50 quick-copy or proof-and-hold jobs. The number is set at the printer control panel in the Configuration menu, and the default is 32. When this preset limit is reached, a newer document will overwrite the oldest. Also, a document that has the same user and job name as one that is already stored on the hard disk will overwrite the existing document. Quick Copy jobs are deleted if the printer's power is removed.

Proof and Hold

This option stores the print job on the printer hard disk, and prints only the first copy of the job, allowing you to check the first copy. If the document prints correctly, you can print the remaining copies of the print job at the printer control panel. The number of proof-and-hold print jobs that can be stored in the printer is set at the printer control panel.

Using a PIN for Private Job and Stored Job

The Private Job and Stored Job options can be secured by a four-digit personal identification number (PIN). This number must be typed in the printer control panel before the printer prints the job.

The box labeled **PIN** is usually inactive. Selecting **Private Job** or **Stored Job** along with **Require PIN to Print** activates the **PIN** box. The Stored Job/PIN coupling has a PIN restriction of four ASCII numeric characters (ASCII 0-30 through 0-39). If you type non-numeric characters, they are removed immediately. If you type more than four characters, the characters past the fourth are truncated. The field temporarily accepts fewer than four digits in the string, but when the edit field loses focus, the zeroes pad the left end until there are exactly four digits. The default initialized value for the PIN is 0000 for **Private Job** and **Stored Job** when **Require PIN to Print** is selected.

Private Job

Use this option to send a print job directly to the printer memory. Selecting **Private Job** activates the **PIN** field. The print job can be printed only after you type a PIN at the printer control panel. After the job is printed, the printer

removes the job from the printer memory. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. **Private Job** stores the print job on the hard disk.

After it is released for printing, the private job is immediately deleted from the printer. If more copies are needed, you must reprint the job from the program. If you send a second private job to the printer with the same user name and job name as an existing private job (and you have not released the original job for printing), the job will overwrite the existing job, regardless of the PIN. Private jobs are deleted if power to the printer is removed.

Stored Job

Use the **Stored Job** option to send a print job directly to the printer hard disk. The print job is stored in the printer as if it is an electronic file cabinet. After the print job is stored in the printer's hard disk, you can print the job at the printer control panel.

The job remains stored on the printer until it is deleted or overwritten by a document with the same user and job names. Stored jobs remain on the printer hard disk when power is interrupted. Use this feature for forms and other common or shared documents.

A stored job can be handled in two ways: as either a private or a public job. Use a private stored job to send a print job directly to the printer memory, which can then be printed only after you type in a PIN at the printer control panel. (You can set the PIN in the **Print** dialog box.) After the job is printed, the job remains in the printer memory and can be printed again at the printer control panel. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. Private mode is initiated by clicking the **Require PIN to Print** check box. In this mode, a PIN typed at the control panel is required to release the job.

The box labeled PIN is usually inactive. The **Require PIN to Print** option is activated if you click **Stored Job**. If selected, you must enter a PIN to make the stored job private.

Note A private stored job is not the same as a private job (see above). Private jobs are deleted from the printer memory after they are printed. Private stored jobs are retained in the printer memory after printing, but require that a PIN be typed each time they are printed.

Document identifiers used in Job Storage

When you use a job storage feature, your document is identified at the printer control panel by user name and job name.

User Name

Use the **User Name** edit box to identify the job at the printer control panel. When the driver is first installed (or when **Factory Defaults Quick Set** is selected), this string initializes to the empty string (""), but the dialog box detects this condition and replaces the string with your login name in Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, and Windows XP. It replaces it with "Untitled" in Windows 3.1*x*. The following describes the restrictions for the **User Name** field.

Job Name

Use the **Job Name** edit box to specify a name to identify the job at the printer control panel. When the driver is installed, or when the **Factory Defaults Quick Set** is selected, this string is initialized to the empty string (" "), but the dialog box detects this condition and replaces the string with "Untitled".

The **Job Name** and the **User Name** fields can contain no more than 16 characters each, and are limited to A through Z and 0 through 9, because the name appears on the printer control-panel display. If you try to type a lowercase character, it automatically shifts to uppercase. If you try to type a character with an ASCII code of fewer than 32 or more than 126 characters, the character is removed from the edit field, along with all characters that follow it. If you try to type more than 16 characters, any character beyond 16 is truncated.

When the dialog box is closed, or the edit box loses focus, an empty string is replaced with "Untitled". In those languages for which "Untitled" cannot be translated without the use of invalid characters, the driver uses a string of

three dashes. The acceptable characters for job name and user name vary for each operating system. The string must be of a length and type that can appear on the printer control-panel display.

Using Job Storage options when printing

You can use **Job Storage** options in the **Destination** tab of the printer driver.

Note The printer driver that is installed on your computer must be configured to use the Job Storage features. See "Configuring the printer driver for a printer hard disk".

1. Click **Print** from the software program. The **Print** dialog box appears.
2. Click **Properties**. The **Properties** dialog box appears.
3. Click the **Destination** tab to show the destination options.
4. Click **Job Storage** on the drop-down menu under **Destination Features**.
5. Click **Settings**. The **Job Storage Settings** dialog box appears.

You can then select one of the Job Storage options described above by clicking the appropriate option button.

Note These instructions are specific to the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, and Windows XP environments when using the latest available PCL 5 and PCL 6 drivers. While the basic concepts of Job Storage are the same for PS print jobs, there are significant differences in the driver user interface. Also, there are some limitations in naming and PIN selection.

Releasing stored jobs at the printer

Once you send a print job using **Job Storage**, you can release the job to print at the printer control panel.

1. Press the select button (the one with the check mark) to open the menus.
2. Press the up and down buttons to scroll to **RETRIEVE JOB**, and then press the select button.
3. Press the up and down buttons to scroll to your job, and then press the select button.
4. Press the up and down buttons to scroll to **PRINT**. (The **PRINT** selection might have an icon next to it indicating that the job is locked. If so, type the PIN number, and then press the select button.) Press the select button.

Deleting a print job

Sometimes it is necessary to delete a print job from the printer memory or hard disk. This can be done at the printer control panel.

1. Press the **Menu** button to open the menus.
2. Press the up and down buttons to scroll to **RETRIEVE JOB**.
3. Press the up and down buttons to scroll to your job name, and then press the select button.
4. Press the up and down buttons to scroll to **DELETE** (The **DELETE** selection might have an icon next to it indicating that the job is locked. If so, type the PIN number, and then press the select button.).

Output bin options

The **Output Bin Options** group box contains a drop-down menu that you can use to select from a list of configured output bins. Only output bins that are configured on the **Configure** tab appear in this drop-down menu.

Note When using the face-down output bin, you must manually switch the bin between face-down and face-up output.

Depending on the bundle and the driver configurations, the HP LaserJet 4200 and 4300 series printers offer the following optional output devices:

- Stacker Bin (Stapler). It provides single-position stapling for up to 15 sheets of paper per document and stacking for up to 500 sheets of unstapled paper.
- Stacker Bin. It provides stacking for up to 500 sheets of paper.

Options

The **Options** drop-down menu is inactive. This setting can be used to enable non-HP paper-handling devices.

Printer image

The bitmap image in the lower-right portion of the **Destination** tab represents the current physical configuration of the printer according to the driver configuration data (obtained automatically through bidirectional communication, or configured manually through the driver). It should have the same appearance as the image in the same location on the **Paper** tab and the **Configure** tab.

On the **Destination** tab, the printer image contains hot spots for selecting an output bin. When the pointer moves over a hot spot, the arrow reverts to the gloved hand used in the Bubble Help, the preview image, and other areas. The current output bin is highlighted in a bright green color on the printer bitmap.

Note On the Destination tab, only output bins have hot spots and can be highlighted; source trays must be selected from the Paper tab.

Basics tab features

Orientation

Orientation refers to the layout of the image on the page, and does not affect the manner in which media is fed into the printer. You can specify the orientation of the print job. The three available orientations are portrait, landscape, and rotated. The default orientation is Portrait.

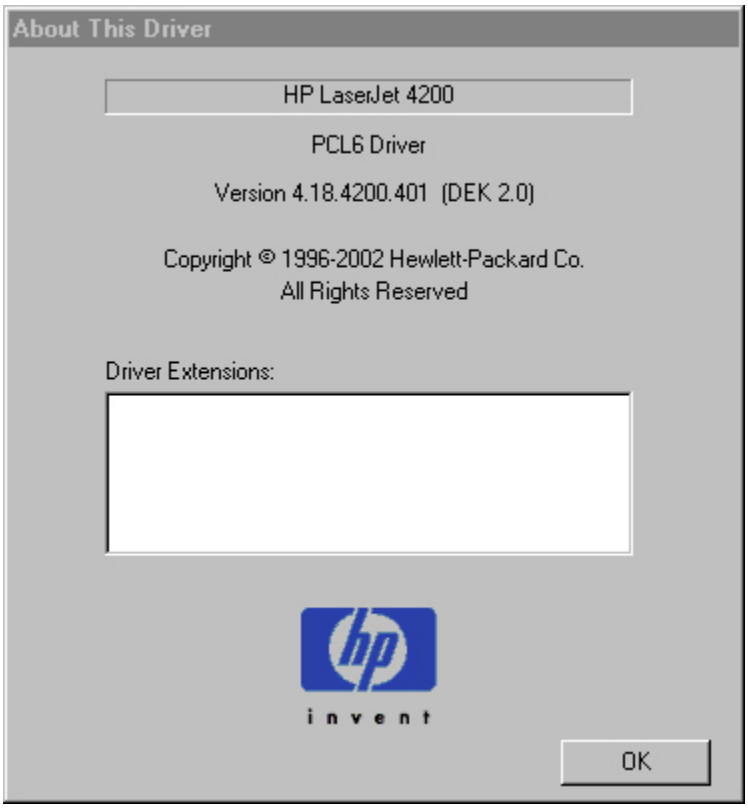
The three orientation options have these configurations:

- Portrait. The top edge of the document is the shorter edge of the paper.
- Landscape. The top edge of the document is the longer edge of the paper.
- Rotate by 180 degrees. This creates a landscape or portrait orientation in which the image is rotated 180 degrees. This setting is useful for printing envelopes and when using some third-party paper-handling devices.

You can can toggle orientation between portrait and landscape by left-clicking the preview image. If you select the **Rotate by 180 degrees** check box, there is no change in the preview image.

About

By clicking the **About** button on the **Basics** tab or clicking the HP logo on any of the driver property pages, the **About** box appears. To close the **About** box, click **OK**, press ESC, press ALT + F4, or press ENTER. The following figure shows the **About** box. The information it contains varies according to HP LaserJet model number, driver, date, and versions.



Configure tab features

When the HP LaserJet 4200 or the HP LaserJet 4300 is selected, the following settings apply:

The **Driver Work Space (DWS)** value shown in the **Other Options** dialog box is 6.0 MB.

- The **Total Printer Memory** value is 48 MB.
- No optional paper destinations, paper sources, duplexing unit, or hard disk are selected.

When the HP LaserJet 4200n or the HP LaserJet 4300n is selected, the following settings apply:

- The **Total Printer Memory** value is 64 MB.
- **Duplexing Unit** is selected.
- No optional paper destinations, paper sources, or hard disk are selected.

When the HP LaserJet 4200tn or the HP LaserJet 4300tn is selected, the following settings apply:

- The **Total Printer Memory** value is 64 MB.
- **Duplexing Unit** is selected.
- **HP 500-Sheet Input Tray** is selected in **Optional Paper Sources**.
- No optional paper destinations are selected.

When the HP LaserJet 4200dtn or the HP LaserJet 4300dtn is selected, the following settings apply:

- The **Total Printer Memory** value is 64 MB.
- **Duplexing Unit** is selected.
- **Mopier Enabled** is selected.
- **Printer Hard Disk** is selected.
- **2 x 500-Sheet Input Tray** is selected.

When the HP LaserJet 4200dtns or the HP LaserJet 4300dtns is selected, the following settings apply:

- The **Total Printer Memory** value is 64 MB.
- **Duplexing Unit** is selected.
- **Mopier Enabled** is selected.
- **Printer Hard Disk** is selected.
- **2 x 500-Sheet Input Tray** is selected.

When the HP LaserJet 4200dtnsl or the HP LaserJet 4300dtnsl is selected, the following settings apply:

- The **Total Printer Memory** value is 64 MB.
- **Duplexing Unit** is selected.
- **Mopier Enabled** is selected.
- **Printer Hard Disk** is selected.
- **2 x 500-Sheet Input Tray** is selected.

Paper-handling options

The **Paper Handling Options** group box provides options for configuring most of the paper-handling device features.

Duplexing unit

Select this option if a duplexing unit is installed in the printer. When it is selected, additional controls appear in the **Document Options** group box on the **Finishing** tab. Unlike most options in this group box, the **Duplexing Unit** option

does not affect the printer image because the duplexing unit is contained within the printer. To print on both sides, click **Print** from the program, click the **Properties** button, click the **Finishing** tab, and then click **Print on Both Sides**.

Mopier enabled

A mopier is an HP-designed printer that produces multiple, collated copies from a single print job. Multiple-original printing (mopying) increases printer performance and reduces network traffic by sending the job to the printer once, then storing it on the hard disk. The remainder of the copies are printed at the printer's fastest speed. All documents can be created, controlled, managed, and finished from the desktop, which eliminates the extra step of using a photocopier.

The HP LaserJet 4200 and 4300 series printers support the Transmit Once mopying feature. The **Mopier Enabled** option is selected by default, if a hard disk is installed and Printer Hard Disk is selected in the driver software.

Envelope feeder

This check box should be selected if an envelope feeder unit is installed on the printer. Selecting the **Envelope Feeder** option causes the envelope feeder bitmap to be superimposed on the printer's bitmap image.

When the **Envelope Feeder** check box is selected, the choice of **Envelope Feeder** is added to the **Paper** tab **Source is** dropdown menu. Its order in the list should directly follow **Manual Feed**.

Optional paper destinations

The **Optional Paper Destinations** drop-down menu contains the following options:

- **(None)**
- HP 500-Sheet Stacker
- HP 500-Sheet Stapler/Stacker

If the 500-Sheet Stapler/Stacker is configured on the **Configure** tab, the **Staple** option is included on the **Finishing** tab.

Optional paper sources

The **Optional Paper Sources** drop-down menu lists optional paper sources for the HP LaserJet 4200 and 4300 series printers. The list of available paper sources varies, depending on your printer, its input accessories, and the printer configuration settings on the **Configure** tab.

For the HP LaserJet 4200 and 4300 series printers, five optional paper sources are available. The settings in the **Optional Paper Sources** drop-down menu are as followings:

- **(None)** (the default setting for the HP LaserJet 4200 and 4300 and 4200n and 4300n models)
- **HP 500-Sheet & 1,500-sheet Input Tray**
- **2 HP 500-Sheet Stackable Trays** (the default setting for the HP LaserJet 4200tn and 4300tn, 4200dtn and 4300dtn, 4200dtns and 4300dtns, and 4200dtnsl and 4300dtnsl models)
- **HP 1,500-sheet Input Tray**
- **HP 500-Sheet Stackable Tray**

Other options

The **Other Options** group box contains a single **More** command button. Clicking the **More** button opens the **More Configuration Options** dialog box.

Storage

If your printer has a hard disk installed, you can use the **Storage** section to specify whether **Job Storage** is enabled. **Job Storage** is automatically enabled if **Printer Hard Disk** is selected. The printer hard disk control can be set manually or updated by using a successful bidirectional communication query that is initiated through the **Update Now** button in environments that support bidirectional communication. **Job Storage Enabled** determines whether **Job Storage** appears as a feature on the **Destination** tab. Because this is the only possible Destination Feature for the HP LaserJet 4200 and 4300 series printers, this also determines whether the **Destination** tab appears.

Printer Memory

Total Memory. This shows the total amount of memory physically installed in the printer. The default values for total printer memory are specified in the Printer Model section of the **Configuration** tab and are based on the printer model.

If you select **Printer Hard Disk**, the **Job Storage** check box is selected as the default setting. Selecting **Printer Hard Disk** also selects the **Mopier Enabled** check box as the default setting for all HP LaserJet 4200 and 4300 series printers. Total printer memory is updated through a successful bidirectional query, or can be set manually.

Driver Work Space. Use the **Driver Work Space** (**DWS**) option to specify the amount of work-space memory available to the printer. In environments that support bidirectional communication, this option is configured automatically. To manually set **DWS**, print a configuration page and find the **DWS** value in the Memory section of the configuration page. The **DWS** value might change if you switch printer-model settings. Then, type that value in the **DWS** box in the **More Configuration Options** dialog box. An accurate **DWS** value optimizes driver performance.

Allow scaling from large paper

Select **Allow Scaling from Large Paper** to allow additional larger-than-supported paper sizes to appear in the **Paper** tab **Size Is** drop-down list. This check box is clear (not selected) by default.

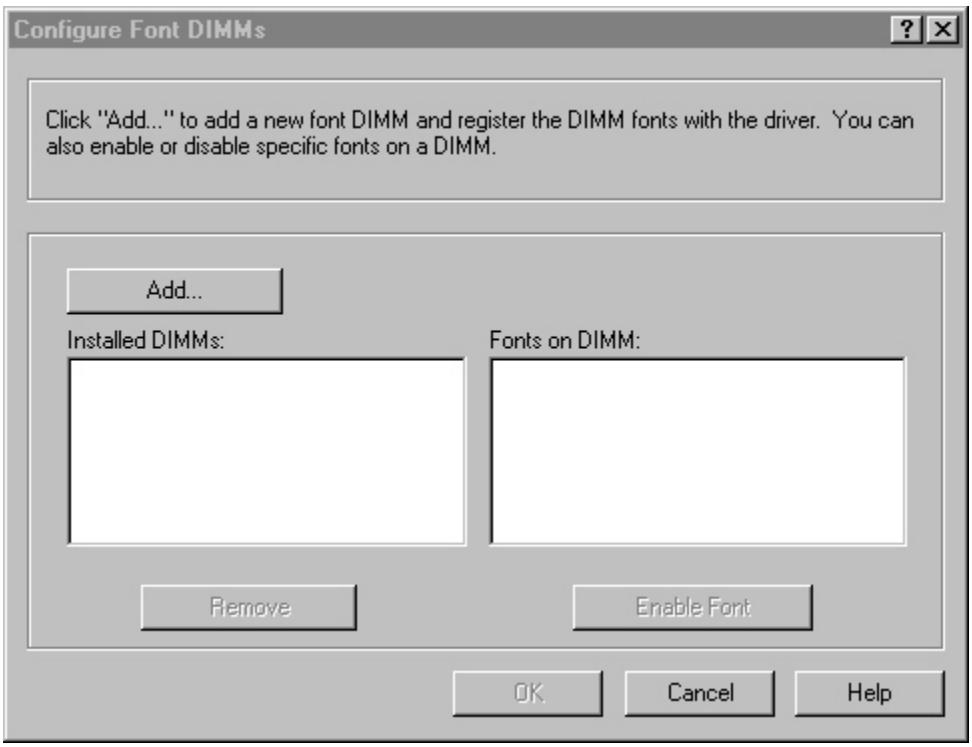
Include types in application source list

When the **Include types in application source list** check box is selected, all paper types (such as envelopes and transparencies) are available from the **Source is:** list on the **Paper** tab. When you are in an application (also called a program), you can open the **Paper** tab by clicking **Print** from the **File** menu, and then clicking **Properties**.

Note This option is available only when using a computer that is running Windows NT 4.0, Windows 2000, or Windows XP.

Fonts

The **Fonts** group box contains a **Font DIMM** check box and a corresponding **Configure** button. Selecting the **Font DIMM** check box tells the driver that a Font DIMM is installed, and that stored data about the fonts on the DIMM is available. When the check box is selected, the **Configure** button is enabled. Click the **Configure** button to open the **Configure Font DIMMs** dialog box. If the **Font DIMM** check box was not selected when you opened the **More Configuration Options** dialog box, selecting that check box automatically opens the **Configure Font DIMMs** dialog box.


Configure Font DIMMs
Click "Add..." to add a new font DIMM and register the DIMM fonts with the driver. You can also enable or disable specific fonts on a DIMM.
Add...
Installed DIMMs:
Fonts on DIMM:
Remove
Enable Font
OK
Cancel
Help

8 Click **OK** to close the **Add Font DIMM** dialog box. The fonts on the DIMM should now be available on the system.

Note When using font DIMMs with the PCL 5e and PCL 6 drivers: To install screen fonts that match the font DIMM, use the .HPB file specifically designed to work with that DIMM. If there are no screen fonts for the DIMM, use the .PCM file specifically designed to work with that DIMM.

Ignore Application Collation

The following table shows the expected behavior for a two-page print job when the number of copies is three.

Table 15: Printer behavior with Ignore Application Collation settings

Hard disk on printer	Mopier Enabled check box	Ignore Application Collation check box	Application Collation check box in Print dialog box	Commands sent by printer	Pages sent to printer	Pages output from printer
Yes	On	On	On Off None	QTY=3	1,2	1,2,1,2,1,2
Yes	On	On	On	QTY=3	1,2	1,2,1,2,1,2
Yes	On	Off	Off	Copies=3	1,2	1,1,1,2,2,2
Yes/No	Off	Off	On	Copies=1	1,2,1,2,1,2	1,2,1,2,1,2
Yes/No	Off	Off	Off	Copies=3	1,2	1,1,1,2,2,2
Yes/No	Off	Off	None	Copies=1	1,2,1,2,1,2	1,2,1,2,1,2
Yes/No	Off	Off	None	Copies=3	1,2	1,1,1,2,2,2
No	On	On	On Off None	QTY=3	1,2	1, 2
No	On	Off	On Off None	QTY=3	1,2	1, 2

Placing the **Ignore Application Collation** setting in the printer properties means that, on a Windows NT network, clients connecting to the printer through a network share cannot change its value; only the network administrator can decide how the printer driver is set up.

You cannot use the **Ignore Application Collation** setting to print non-collated copies. If you want to print non-collated copies, disable mopying.

Automatic configuration

If you have modified the configuration of the HP LaserJet 4200 or 4300 series printer since installation, click the **Update Now** button to automatically reflect the new configuration in the driver. For more information about the Driver Automatic Configuration feature, see "Driver Autoconfiguration."

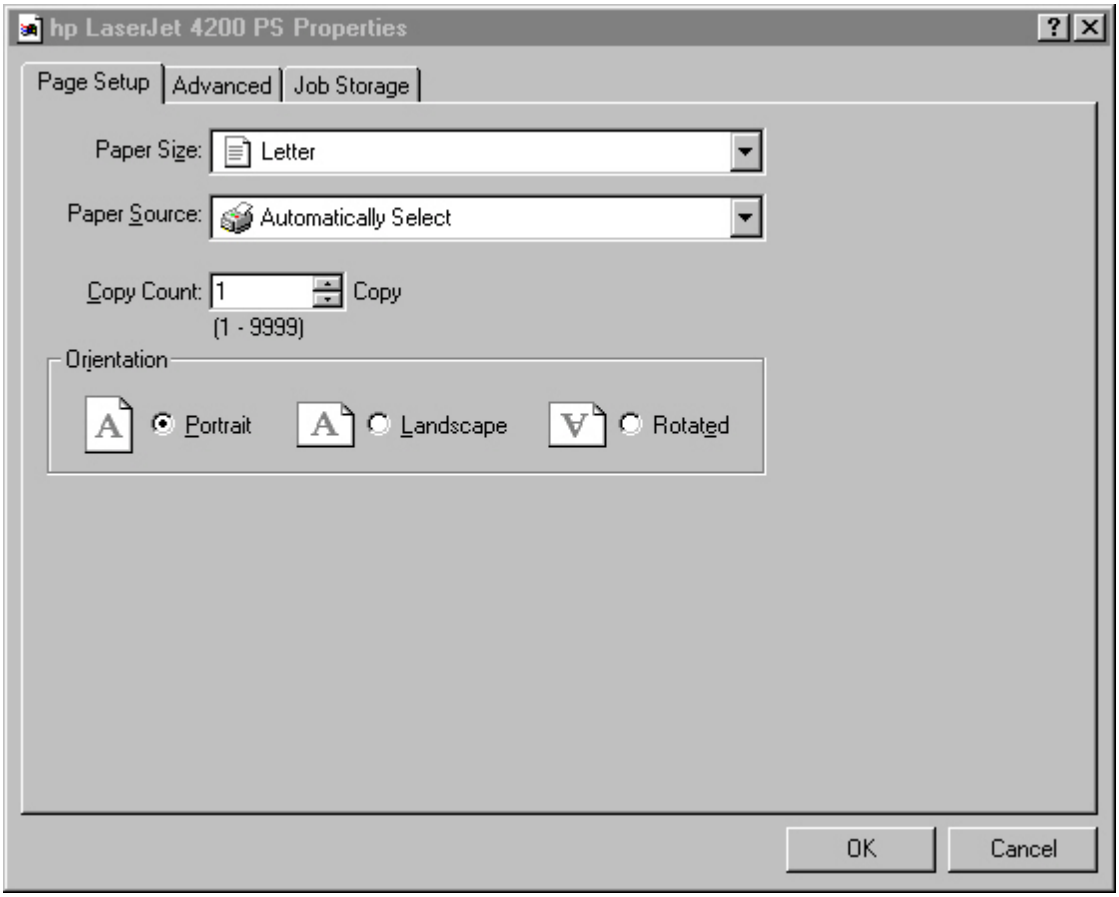
Printer image

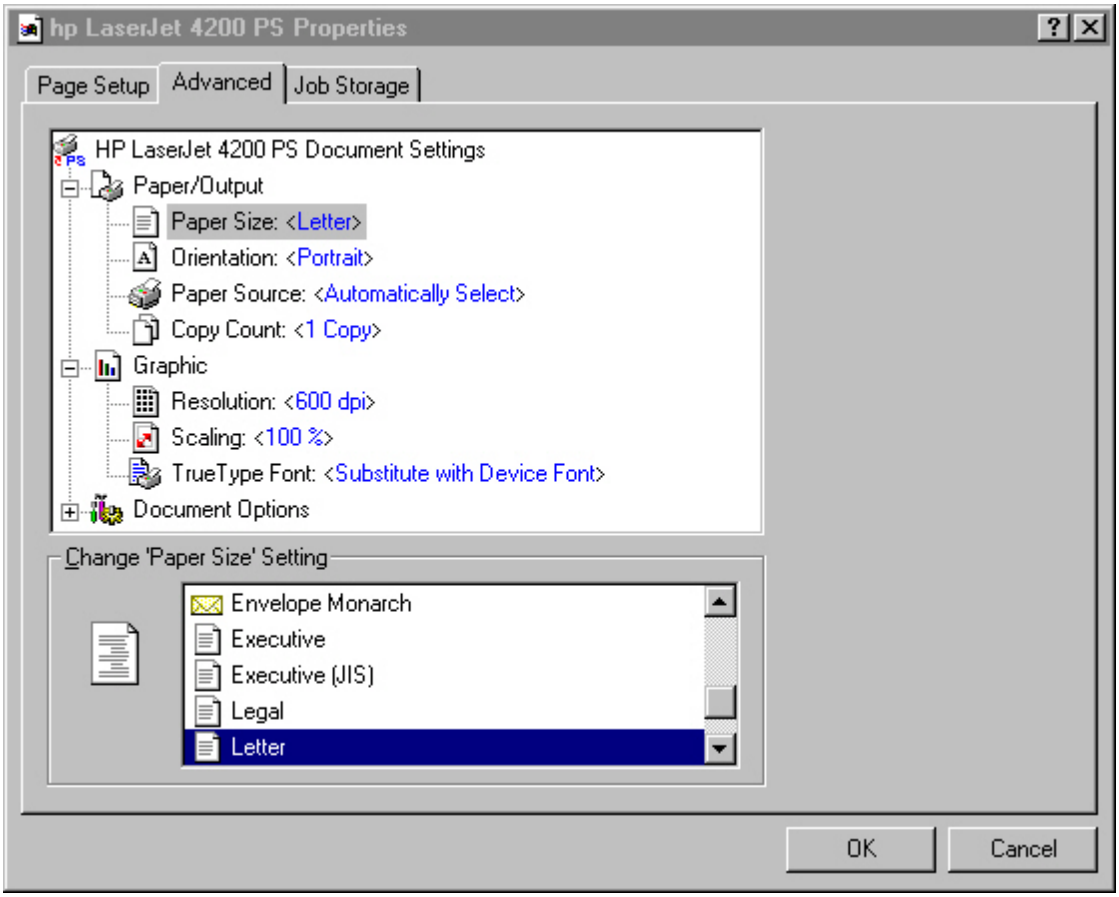
The bitmap image in the lower-right portion of the **Configure** tab represents the current physical configuration of the printer according to the driver configuration data (which can be obtained automatically through bidirectional communication, or configured manually in the **Paper-Handling Options** group box). It should have the same appearance as the image in the same location on the **Paper** tab and the **Destination** tab.

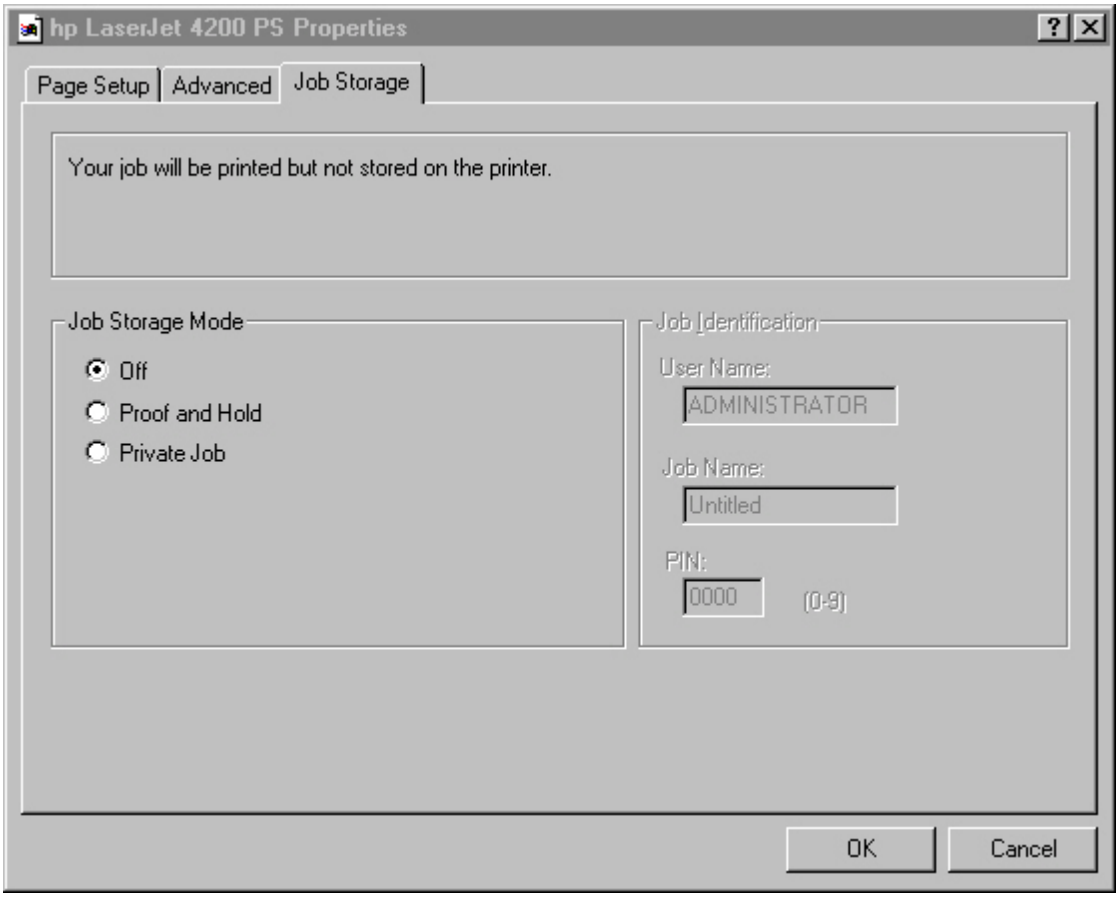
NT Forms tab features

5 If necessary, click the **Clear All** button to reconfigure all the trays, and remove the size and type constraints that have been imposed on the **Paper** tab.

PS driver features for Windows 95, 98, Me, and NT 4.0


hp LaserJet 4200 PS Properties
Page Setup
Advanced
Job Storage
Paper Size:
Letter
Paper Source:
Automatically Select
Copy Count:
1
Copy
(1 - 9999)
Orientation
Portrait
Landscape
Rotated
OK
Cancel


hp LaserJet 4200 PS Properties
Page Setup
Advanced
Job Storage
HP LaserJet 4200 PS Document Settings
Paper/Output
Paper Size: <Letter>
Orientation: <Portrait>
Paper Source: <Automatically Select>
Copy Count: <1 Copy>
Graphic
Resolution: <600 dpi>
Scaling: <100 %>
TrueType Font: <Substitute with Device Font>
Document Options
Change 'Paper Size' Setting
Envelope Monarch
Executive
Executive (JIS)
Legal
Letter
OK
Cancel


hp LaserJet 4200 PS Properties
Page Setup
Advanced
Job Storage
Your job will be printed but not stored on the printer.
Job Storage Mode
Off
Proof and Hold
Private Job
Job Identification
User Name:
ADMINISTRATOR
Job Name:
Untitled
PIN:
0000
(0-9)
OK
Cancel

PIN

You can assign a four-digit PIN to a print job when you are using the Private Job or Stored Job feature. This number must be typed at the printer control panel before the job can be printed.

The box labeled **PIN** is usually inactive. Selecting **Private Job** or **Stored Job** along with **Require PIN to Print** activates the **PIN** box. The Stored Job/PIN coupling has a PIN restriction of four ASCII numeric characters (ASCII 0-30 through 0-39). If you type non-numeric characters, they are removed immediately. If you type more than four characters, the characters after the fourth are truncated. The field temporarily accepts fewer than four digits in the string, but when the edit field loses focus, the zeroes pad the left end of the PIN until it contains exactly four digits. The default initialized value for the PIN is 0000 for **Private Job** and **Stored Job** with **Require PIN to Print** selected.

Private Job

Use this option to send a print job directly to the printer memory. Selecting **Private Job** activates the **PIN** field. The print job can be printed only after you type a PIN at the printer control panel. After the job is printed, the printer removes the job from the printer memory. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. **Private Job** stores the print job on the hard disk.

After it is released for printing, the private job is immediately deleted from the printer. If more copies are needed, you will have to reprint the job from the software program. If you send a second private job to the printer that has the same user name and job name as an existing private job (and if you have not released the original job for printing), the second job will overwrite the older job, regardless of the PIN. Private jobs are deleted if power to the printer is interrupted.

Stored Job

Use Stored Job to send a print job directly to the printer hard disk. The print job is stored in the printer as if it is an electronic file cabinet. After the print job is stored in the printer's hard disk, you can print the job at the printer control panel. Nothing will be printed until the job is requested at the printer control panel.

The job remains stored on the printer until it is deleted or overwritten by a document with the same user and job names. Stored jobs remain on the printer hard disk when power is interrupted. Use this feature for forms and other common or shared documents.

A stored job can be handled in two ways: as either a private or a public job. If you create a private stored job, a print job is sent directly to the printer memory and can be printed only after you type a PIN at the printer control panel. (You can set the PIN in the **Print** dialog box.) After the job is printed, the job remains in the printer memory and can be printed again from the printer control panel. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. Private mode is initiated by selecting the **Require PIN to Print** check box. In this mode, you have to type a PIN at the control panel to release the job.

The box labeled PIN is usually inactive. The **Require PIN to Print** option is activated if you click **Stored Job**. If the **Require PIN to Print** option is selected, you must type a PIN to make the stored job private.

Note A private stored job is not the same as a private job (see above). Private jobs are deleted from the printer memory after they are printed. Private stored jobs are retained in the printer memory after printing, but require a PIN to be used each time the private stored jobs are printed.

Device Settings tab features

This section describes the options available on each tab of the PCL 6 and PCL 5e driver interfaces.

Help system

The HP LaserJet PCL 6 and PCL 5e drivers include a full-featured Help system to provide assistance with printing and configuration options.

What's this? Help

In Windows 2000 and Windows XP, "What's this?" Help is supported. You can gain access to "What's this?" Help messages in any of the following ways:

- Right-click a control and click **What's this?**, and a pop-up Help window appears.
- Click the **?** button at the upper-right corner of the frame, next to the X, to change the cursor to an arrow with a question mark. Use this special cursor to select a control, and the pop-up Help window for that feature appears.

- Press the **F1** key, and the Help window for the currently selected control appears.

Context-sensitive Help

Press the **Help** button on a driver tab or in a dialog box, and context-sensitive Help appears.

Constraint messages

Constraint messages are unsolicited messages that appear in response to specific actions you take. These messages alert you to selections that are illogical or impossible given the capabilities of the printer or the current settings of other controls. For example, if you click **Print on Both Sides** and then change the paper type to transparencies, a message appears asking you to resolve this conflict.

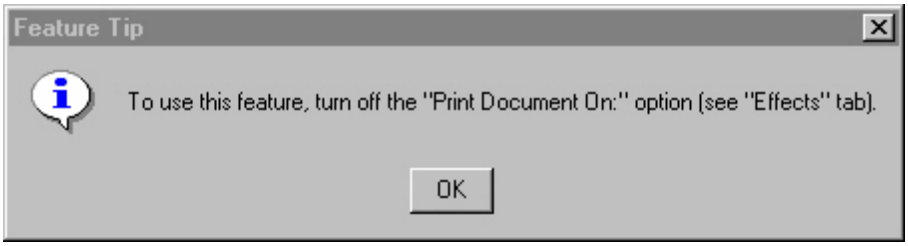
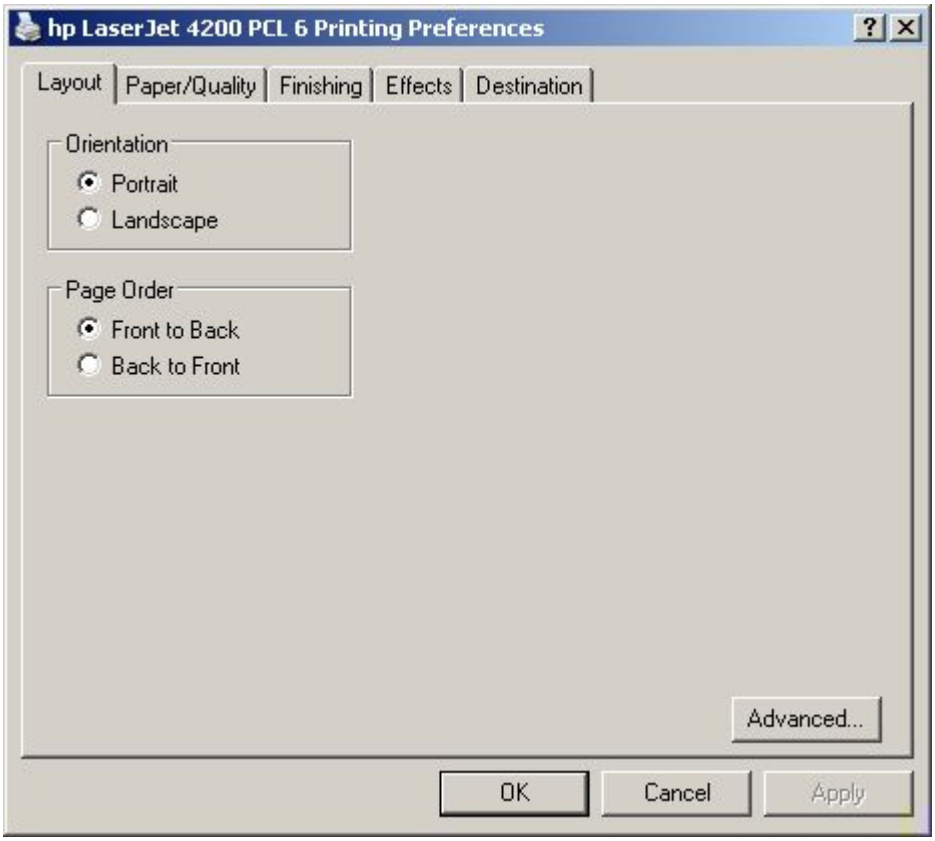


Figure 34: A typical constraint message with an OK button

Whenever a constraint message appears with **OK** or **Cancel** buttons, the interpretation of the buttons is as follows:

- Clicking **OK** accepts the change that was just made, and the driver then resets the conflicting control to a setting that is compatible with the new value.
- Clicking **Cancel** rejects the change that was just made, setting the control back to its previous value.

Layout tab


hp LaserJet 4200 PCL 6 Printing Preferences
Layout
Paper/Quality
Finishing
Effects
Destination
Orientation
Portrait
Landscape
Page Order
Front to Back
Back to Front
Advanced...
OK
Cancel
Apply

Page Order

Page Order specifies the order in which the pages of your document are printed. Front to Back prints the document so that page 1 is the front of the document. Back to Front prints the document so that page 1 is at the back of the document. The Back to Front setting is useful if the user is printing to a face-up output bin to achieve output in the correct order.

Note

The page-ordering operation works on whole sheets of paper rather than on individual logical pages. Accordingly, if you set N-up to be greater than one, the ordering of logical pages on a physical sheet of paper does not change.

Advanced features

The Advanced button allows you to select items such as paper size and copies in the driver (even though today, most programs support these features in their print dialog box or through the program page settings) or special controls that are not commonly used. This is a Microsoft pop-up dialog. The main features of interest are described.

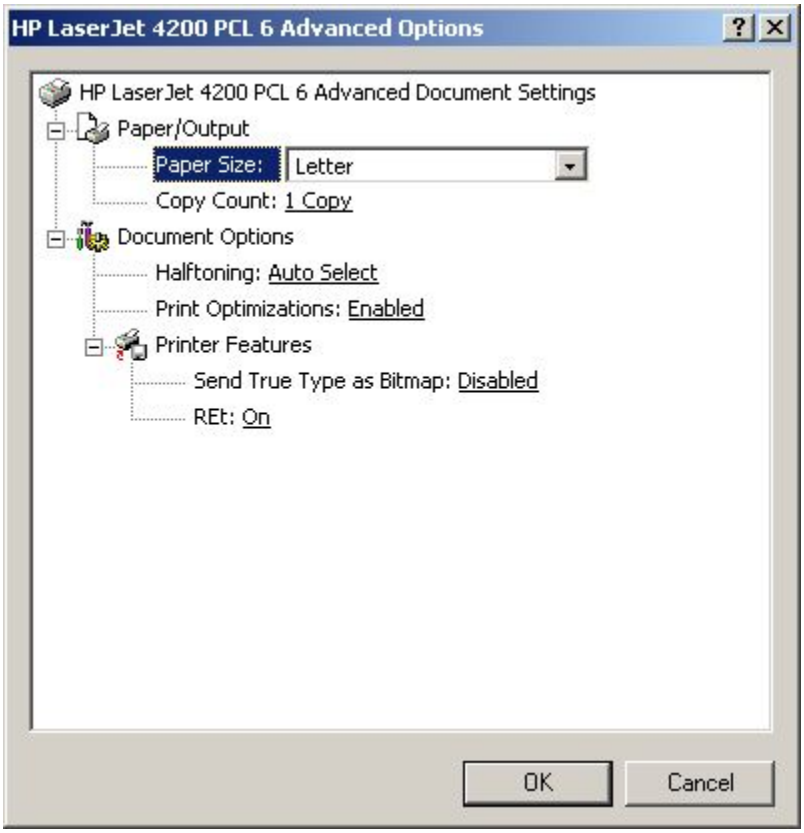


Figure 36: The default appearance of the Advanced subtab

Paper Size

Paper Size sets the default paper size used by the driver if the program does not specify a size. This list contains all standard printer-supported forms and any user defined forms that can be supported by the printer, as defined through the server properties. This setting is used by the driver to highlight the constraints that features have on paper size. For example, Letter-size media cannot be pulled from an envelope feeder.

Copy Count and Collated

This driver setting is useful for programs that do not provide a copy count. The Collated check box appears when the Copy Count setting is greater than 1. The default collate setting is selected.

Note This setting is not synchronized with the program's print dialog.

REt

Resolution Enhancement technology is a simple on/off setting rather than light/medium/dark/off. The On setting corresponds to the "medium" setting found in older HP printers.

Send TrueType as Bitmaps

Send TrueType as Bitmaps is the only setting available and provides the user a safety net for those programs that have trouble dealing with TrueType fonts for special graphic purposes such as shading, rotation, or slanting. The feature is not available when the Send Page as Raster option is selected. The check box is clear (off) by default. Using this feature, TrueType fonts are first converted to bitmap softfonts prior to downloading. The On setting causes the driver to send TrueType fonts to the printer as outlines, which retains the standard format (Outline) of the fonts.

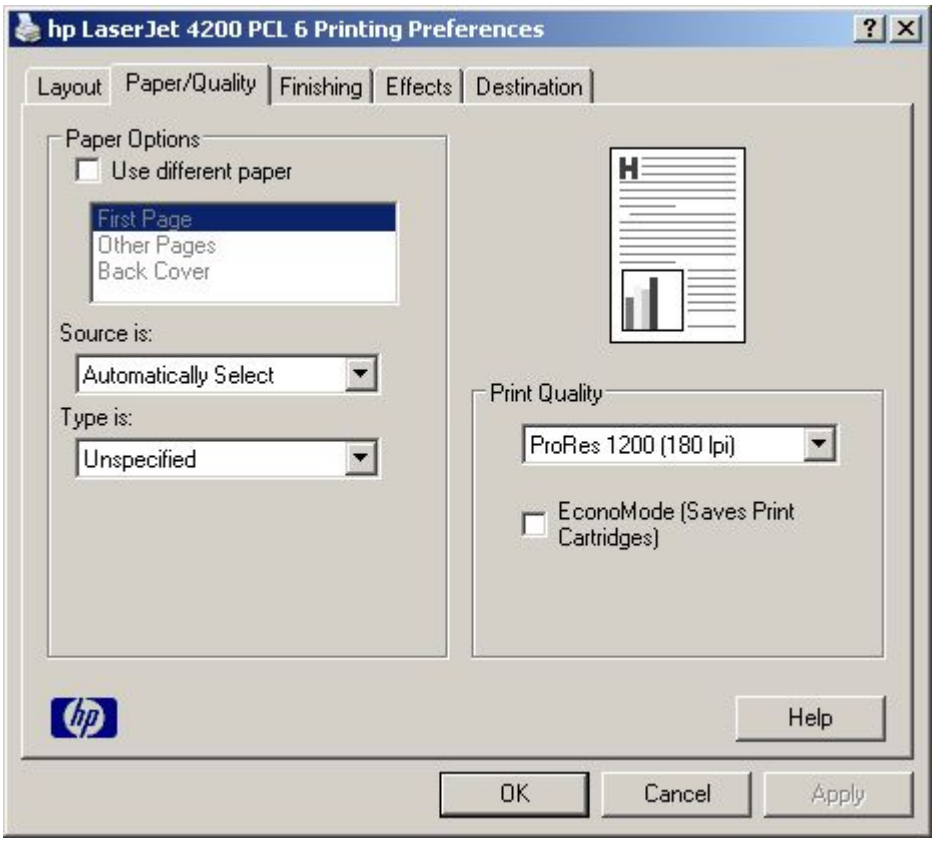
Graphics Mode for PCL 5e

There are two settings under Graphics Mode (on the PCL 5e driver only) that control the way in which the driver expresses vector graphics on a page:

- Select Send Graphics as Vector to send graphics to the printer as a combination of HP-GL2 and raster images. This setting may produce higher quality graphics output.
- Select Send Graphics as Raster to send all graphics to the printer as images composed of individual dots. This setting may improve printing speed in some cases.

Paper/Quality tab features

The Paper/Quality tab allows you to specify the size, type, and source of your print media, together with Print Quality settings. You may also indicate paper selection choices for the first page of the document that are different from the choices for the other pages. The Paper/Quality tab is shown in the following illustration.



Whenever you make changes to all pages (that is, when Use different paper is cleared), these changes are reflected in both the First Page and Other Pages settings whenever the user sets “Use different paper”.

Back Cover

The Back Cover allows the user to select an alternate paper source or media type from which a blank page will be drawn and placed after the last page of the document. The default selection is that no back cover is printed.

The settings for Back Cover are not retained when the Use different paper check box is cleared. If you select Use different paper, and then select Back cover, the Add a blank back cover check box appears. When you clear the Use different paper check box, the source and media type for the first tab overwrites the other paper settings and the Add a blank back cover check box is cleared, and disappears. The setting for Source is: is set to Automatically Select, and the setting for Type is: is set to Unspecified.

Source is:

The Source Is: setting specifies the desired paper source to use for printing a document. Different printer models support different paper sources, such as upper tray, envelope feed, cassette, and manual feed.

If you click Automatically Select, the printer uses the paper tray that supports the paper size you have selected. If you choose a paper source other than Automatically Select, make sure that the correct paper size is loaded in the paper source.

All other options are printer-dependent. Consult the operating manual for your printer to determine what these settings do and which settings are appropriate for the task you want to perform.

Type is:

This dropdown menu contains the media types supported by the printer, as well as any user-defined types that may have been created by a printer administrator using Web JetAdmin. When the default setting, Unspecified; is used, the printer uses its default media type, usually Plain.

No mechanism exists for manually adding custom paper types from the driver — these can only be added with the bidirectional-communication mechanism, and they must already exist in the printer when the bidirectional-communication query occurs. If bidirectional communication is working, the information returned will be used to update the list of paper types. If bidirectional communication is not working, the driver will look for any custom paper types that it might have saved from a previous bidirectional communication query and use those. Otherwise, no custom paper types will be accessible through the driver.

The standard types that appear in the lists are:

- Bond
- Cardstock >164 g/m2
- Envelope
- Labels
- Letterhead
- Plain
- Preprinted
- Prepunched
- Recycled
- Rough
- Transparency
- Unspecified

Print Quality

For the HP LaserJet PCL 6 driver, the Print Quality group box contains the following resolution options:

- **ProRes 1200 (180 lpi)**
- **ProRes 1200 (212 lpi)**
- **FastRes 1200 (Faster)**
- **600 dpi**

FastRes 1200 (Faster) is the default setting.

For the HP LaserJet PCL 5e driver, the Print Quality group box contains the following resolution options:

- **600 dpi**
- **300 dpi**

300 dpi is the default setting.

For the HP LaserJet PS driver, the Print Quality group box contains the following resolution options:

- **ProRes 1200 (Best)**
- **FastRes 1200 (Faster)**
- **600 dpi**

FastRes 1200 (Faster) is the default setting.

EconoMode

Use the **EconoMode** check box to turn this toner-saving feature on and off independently of the other **Print Quality** tab settings. When this check box is selected, the preview image lightens to show the expected appearance of the printed page when this feature is applied. The option is off by default.

The **EconoMode** option can also be activated from the printer control panel. The setting on the **EconoMode** option on the **Print Quality** tab (on or off) overrides the setting on the printer control-panel display, as shown on the following table. If an HP cartridge is not used, EconoMode is not available, regardless of the driver or control-panel setting.

Table 16: EconoMode Settings

Default	Driver setting for print job	HP cartridge	Front panel reports	Actual result for print job
ON	ON	Yes	ON	ON
ON	ON	No	OFF	OFF
ON	OFF	Yes	ON	ON
ON	OFF	No	OFF	OFF
OFF	ON	Yes	OFF	ON
OFF	ON	No	OFF	OFF
OFF	OFF	Yes	OFF	OFF
OFF	OFF	No	OFF	OFF

Finishing tab features

The appearance of the Finishing tab differs, depending on the printer model and paper-handling accessories installed. The following illustration shows the default appearance of the Finishing tab:

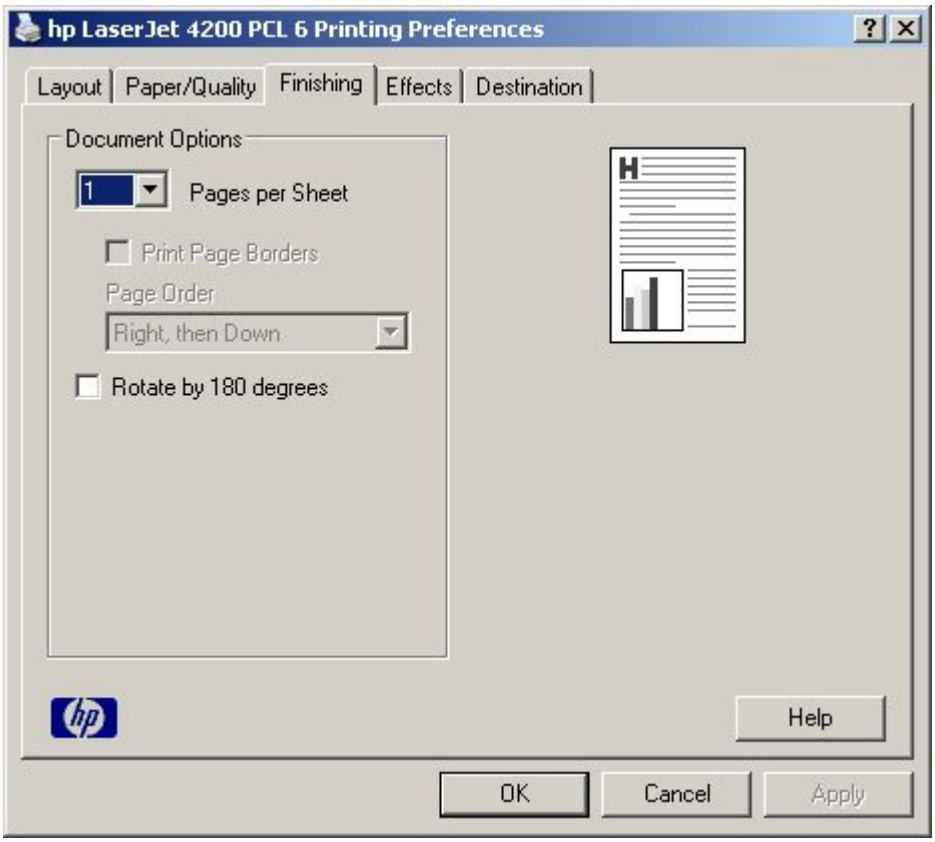
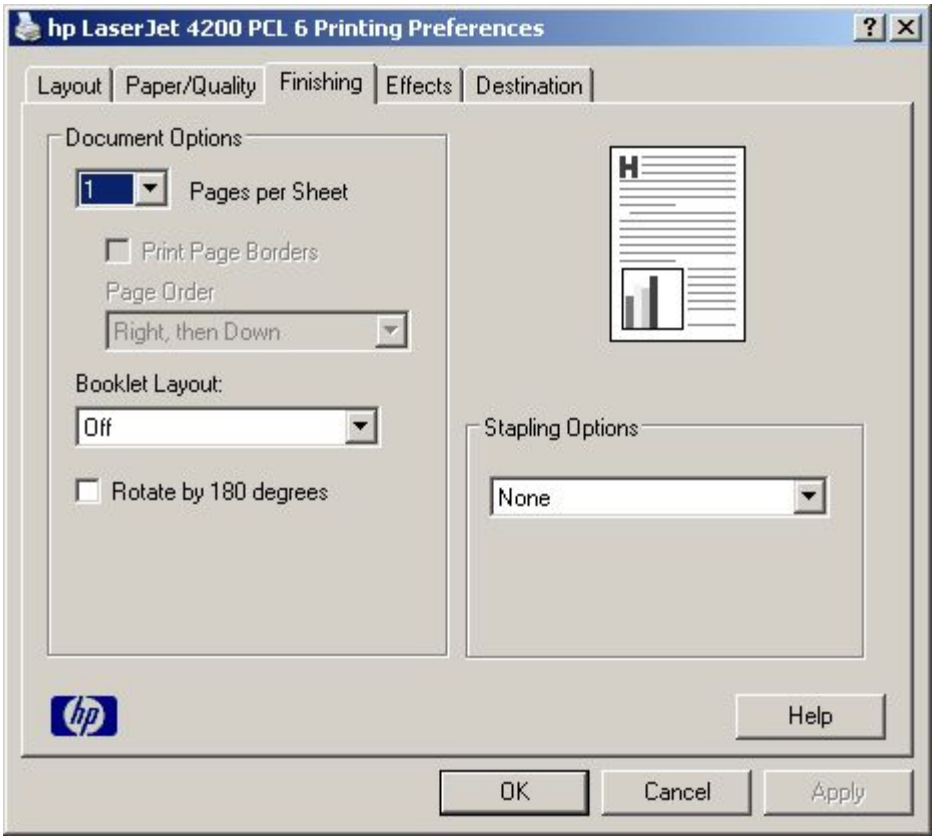


Figure 38: The default appearance of the Finishing tab

The full range of settings for the Finishing tab is shown in the following illustration.



When the Print Page Borders check box is selected, a line is set around each page image to help visually define the borders of each logical page.

Print Page Borders

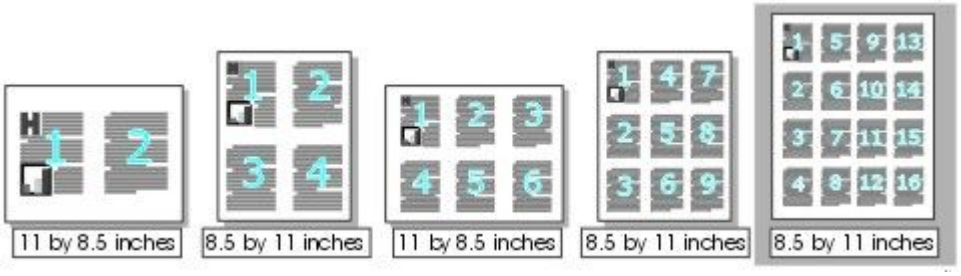
When you select the Print Page Borders check box, a line is set around each page image on a printed sheet to help visually define the borders of each logical page.

Page Order

There are four options for page order:

- **Right, then Down**
- **Down, then Right**
- **Left, then Down**
- **Down, then Left**

The preview document image changes to reflect alterations in these settings, as shown by the examples in the following illustration.



Rotate by 180 degrees

This feature causes the driver to rotate all page images 180 degrees. The purpose of this feature is to provide more control over the binding edge and for controlling the image on special media. For example, a printer may have difficulty-fusing toner near the trailing edge of an envelope. To correct this problem, rotate the media 180 degrees in the paper tray and select the Rotate by 180 degrees check box.

Stapling Options

The Stapling Options group box is visible when the Accessory Output Bin: setting on the Device Settings tab is HP 500-Sheet Stacker/Stapler. Use the Paper Size option in the Advanced window of the Layout tab to select the media size.

Stapling a document

1. Click File, click Print, and then click Properties.
2. Click the Finishing tab.
3. Select the One Staple Angled in the Stapling Options drop-down menu.

Stapling options may be disabled by any of the following conflicts:

- The staple unit does not support the paper size.
- The stapling unit does not handle certain media types. For example, Transparency, Cardstock, or Labels.

Effects tab features

The **Effects** tab is used to create unique paper effects such as scaling and watermarks.

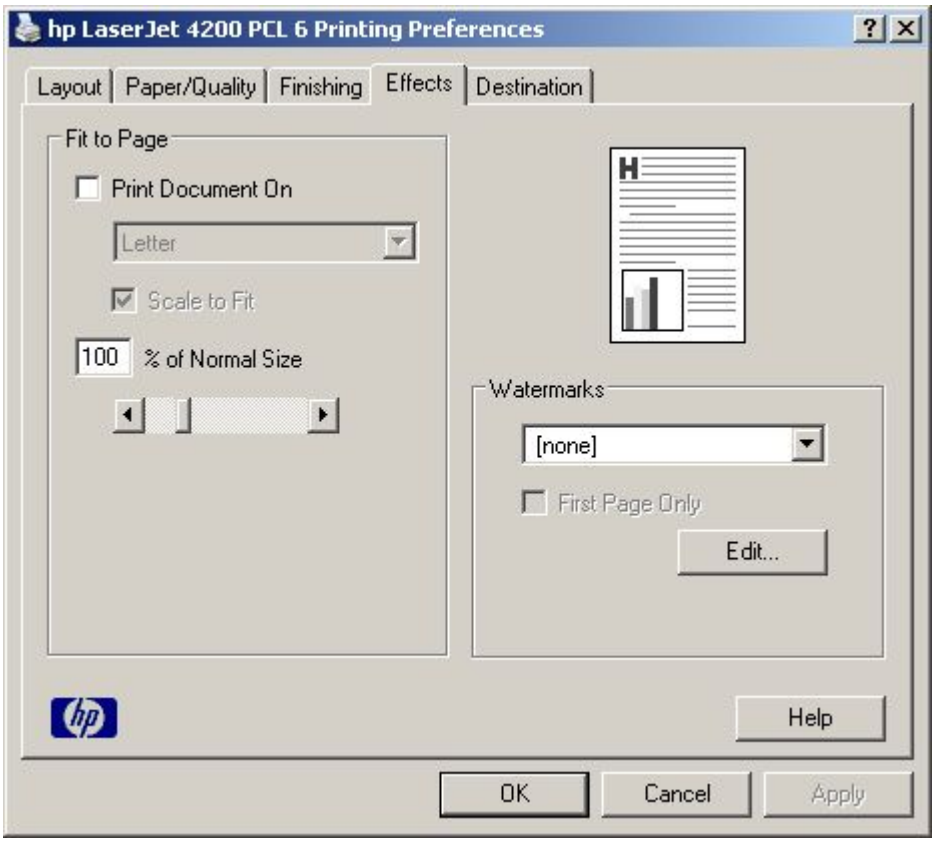


Figure 41: Effects tab

Print Document On setting

Use **Print Document On** to format the document for one paper size and then print the document on a different paper size, with or without scaling the page image to fit the new paper size.

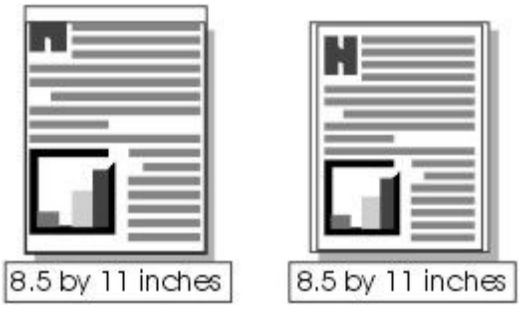
The **Print Document On** control is disabled by any of the following conditions:

- **Percent of Normal Size** is not 100.
- **Pages per Sheet** (on the **Finishing** tab) is not 1.

When **Print Document On** is selected, the drop-down menu shows the media sizes on which you can print. The list contains all standard media sizes supported by the selected media source and any custom sizes that you have created (if the currently selected media source is manual, auto, or any tray). When **Print Document On** is selected, **Scale to Fit** is automatically selected.

Scale to Fit option

The **Scale to Fit** option specifies whether each formatted document page image is scaled to fit the target paper size. By default, **Scale to Fit** is selected when **Print Document On** is selected. If the setting is turned off, then the document page images will not be scaled, and are instead centered at full size on the target paper. If the document size is larger than the target paper size, then the document image is clipped. If it is smaller, then it is centered within the target paper. The following illustration shows preview images for a document formatted for Legal paper with the **Print Document On** option selected, and the target size specified as **Letter.**



The following settings disable **% of Normal Size**:

- **Print Document On** is selected.
- **Pages per Sheet** is not 1.

Watermarks

The drop-down menu shows alphabetically sorted watermarks that are currently available on the system, plus the string "(none)", which indicates that no watermark is selected. This is the default setting. Any watermark selected from this list appears in the preview image.

When **First Page Only** is selected, the watermark is printed only on the first page of the document. The **First Page Only** check box is disabled when the current watermark selection is "(none)".

Watermarks are applied to logical pages. For example, when **Pages per Sheet** is set to "4" and **First Page Only** is turned off, four watermarks appear on the physical page (one on each logical page).

Click **Edit,** and the **Watermark Details** dialog box appears.

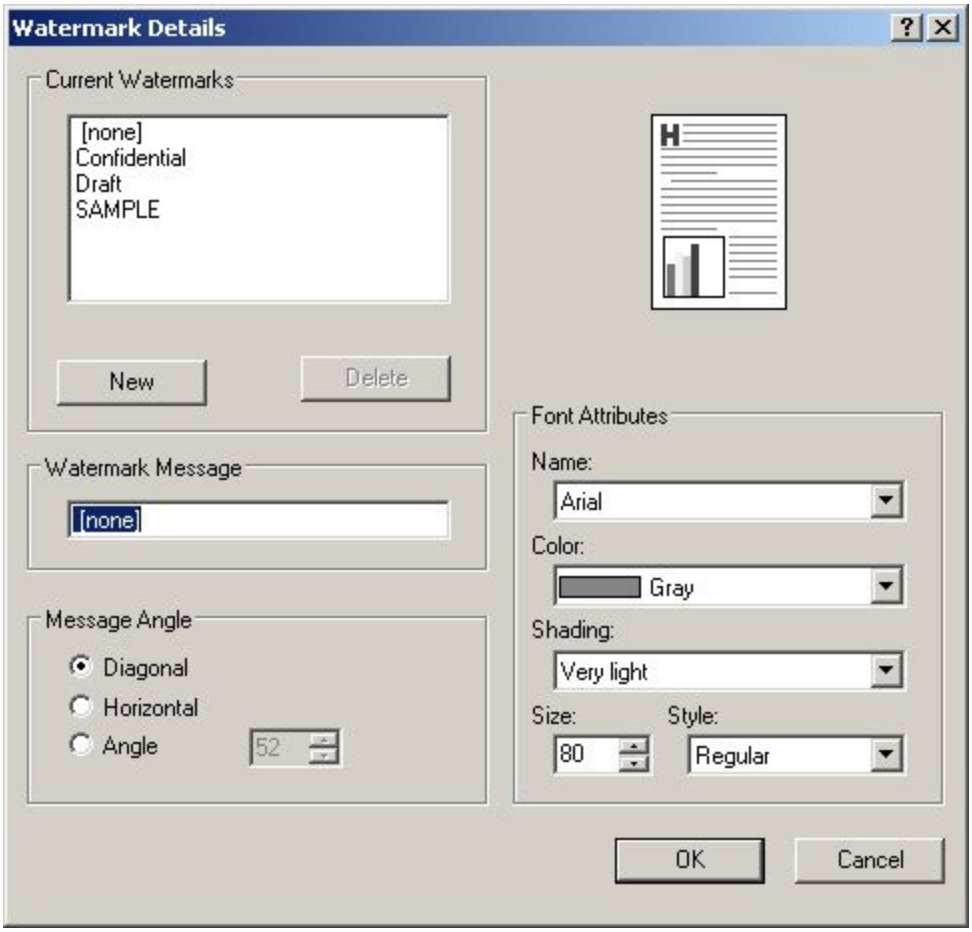


Figure 43: Watermark Details

The dialog box shows a preview image and provides options for creating a new watermark and controlling the message angle and font attributes.

Click **OK** to accept all changes made in the **Watermark Details** dialog box. However, clicking **Cancel** does not cancel all changes. If you make changes to a watermark, and then select a different watermark or click **New**, all changes made to the previous watermark are saved, and only the current, unsaved changes can be canceled.

Current Watermarks

The **Current Watermarks** group box contains a list of available watermarks, both predefined watermarks made available in the driver and any new watermarks you have created. To create a new watermark, click **New**. The new watermark appears in the **Current Watermarks** list and in the **Watermark Message** edit box as "Untitled" until you

name it. To name the new watermark, type the selected watermark text in the **Watermark Message** edit box. To delete a watermark, select the watermark in the **Current Watermarks** list and click **Delete**.

Note You can have no more that 30 watermarks in the Current Watermarks list at one time. When the limit of 30 watermarks is reached, the New button is disabled, and a Bubble Help appears that explains why the button is disabled and how to enable it.

To edit an existing watermark, select the watermark in the **Current Watermarks** list. If you change the Watermark Message for that watermark, you are, in effect, creating a new watermark.

Watermark Message

The Watermark Message is also the name that identifies the watermark in the Current Watermarks list, except when more than one watermark has the same message. For example, you might want several different watermarks with the message DRAFT, each with a different font or size. When this occurs, the string is appended with a space, a pound sign, and a number (for example, **Draft #2**). When a number is added, the number two is used first, but if the resulting name is also in the list, then the number increases until the name is unique.

Message Angle

Use the controls in the **Message Angle** group box to print the watermark in a diagonal, horizontal, or angle (custom) orientation to the page's text. The default is **Diagonal**. All three settings automatically center the watermark string within the page; the selection of a particular setting affects only the angle of the string placement. **Diagonal** places the text along a line that spans the lower-left to upper-right corners of the page.

Font Attributes

Use controls in the **Font Attributes** group box to change the font and the color, shading, size, and style of the font.

Name

The **Name** drop-down menu lists TrueType (TM) fonts that are currently installed on the system.

Color

The **Color** drop-down menu lists the fixed, unalterable color choices for the watermark. **Gray** is the only color option for the HP LaserJet 4200 and 4300 series printers.

Shading

The following range of shades is available from the **Shading** drop-down menu:

- **Lightest**
- **Very Light**
- **Light**
- **Medium Light**
- **Medium**
- **Medium Dark**
- **Dark**
- **Very Dark**
- **Darkest**

These values represent the intensity of the color selected in the Color attribute.

Size

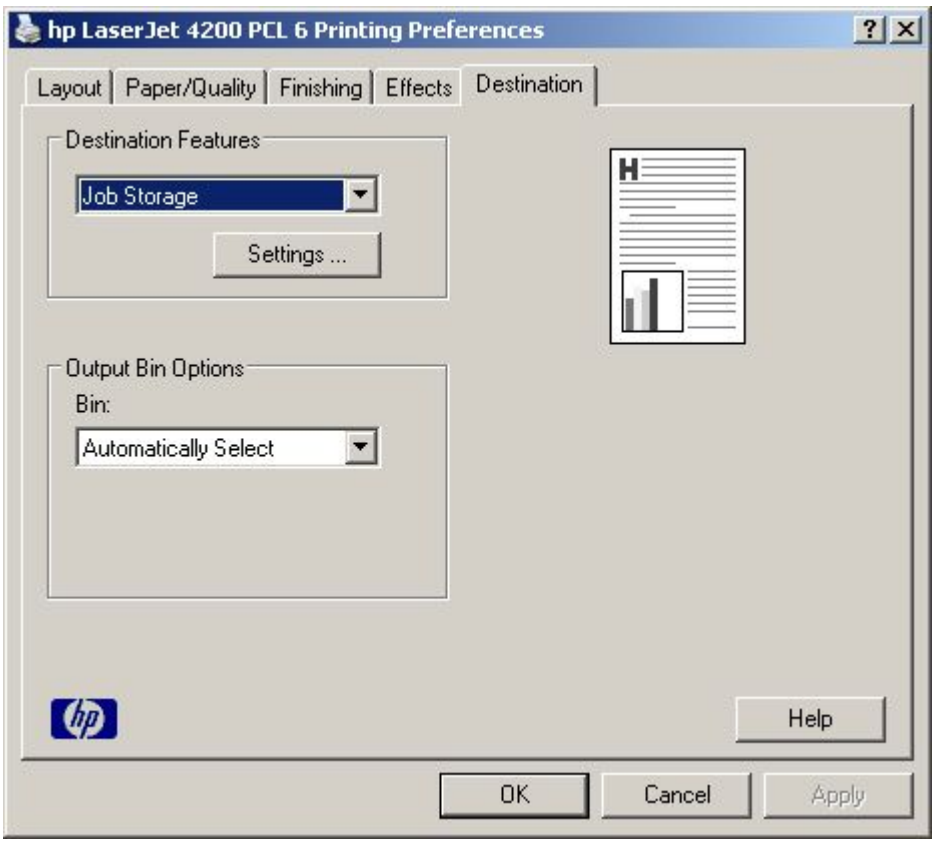
Font sizes from 1 to 999 points are available from the **Size** menu. The default point size is language-dependent. The choice of regular, bold, italic, and bold italic is available from the **Style** drop-down menu.

Default settings

The default settings for new watermarks are **Arial** (R) font, **Gray** color, **Very Light** shading, **150points**, and **Regular** style. The default settings for preset watermarks are **Arial** font, **Gray** color, **Very Light** shading**, and Bold** style. The default point size for preset watermarks is language-dependent, and varies.

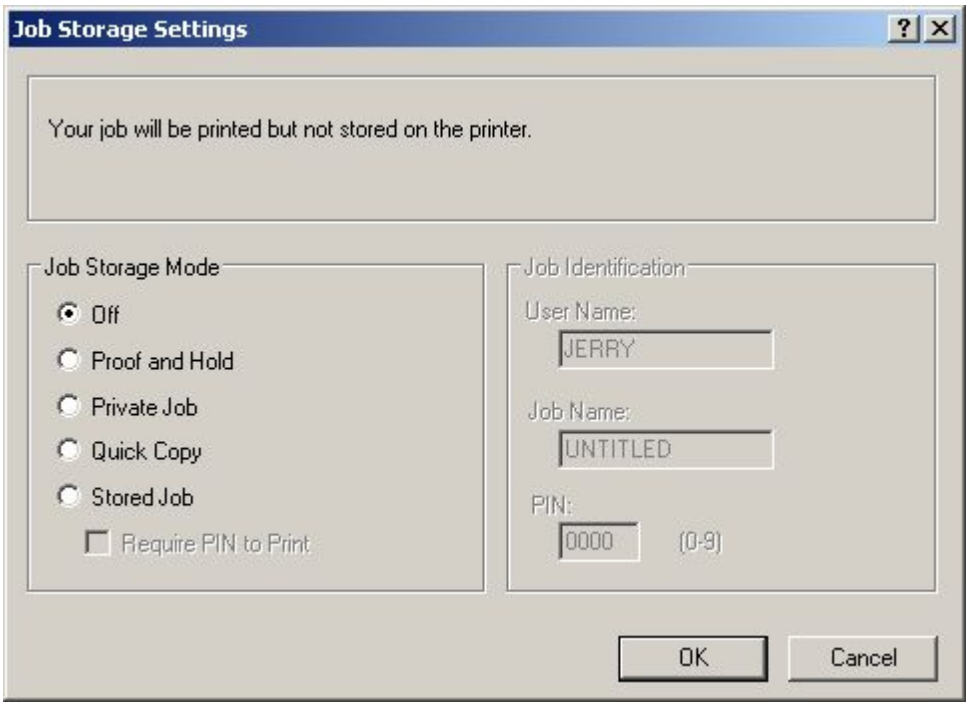
Destination tab features

The Destination tab provides options for job storage and output bins. The Destination tab is shown in the following illustration.



- **Stored Job**

The following illustration shows the Job Storage Settings window.



Job storage modes

Using the Job Storage feature on your HP LaserJet 4200 or 4300 series printer, you can store documents at the printer and then control the printing of these documents using the printer control panel. This feature is intended to provide greater flexibility, convenience, security, and cost savings.

The HP LaserJet 4200 and 4300 series printers offer the following Job Storage options.

Off

This option turns the Job Storage feature off (it is disabled), which means the print job will not be stored in the printer.

Quick Copy

Quick Copy stores a copy of a printed job on the hard disk, and allows you to print additional copies of a print job using the control panel. The number of quick-copy print jobs that can be stored in the printer is set from the printer control panel.

Note

The printer configuration can be set to hold a maximum of 50 quick-copy or proof-and-hold jobs. The number is set on the printer control panel in the Configuration menu, and the default is 32. When this preset limit is reached, a newer document will overwrite the oldest. Also, a document that has the same user and job name as one already stored on the hard disk will overwrite the existing document. Quick-copy jobs are deleted if the printer's power is removed.

Proof and Hold

This option stores the print job on the printer hard disk or in printer RAM memory, and prints only the first copy of the job, allowing you to check the first copy. If the document prints correctly, you can print the remaining copies of the print job from the printer control panel. The number of proof-and-hold print jobs that can be stored in the printer is set from the printer control panel.

Using a PIN for Private Job and Stored Job

The Private Job and Stored Job options can be secured by a four-digit personal identification number (PIN). This number must be typed in the printer control panel before the printer prints the job. You can choose a predefined PIN, or you can also create a custom PIN.

The box labeled PIN is usually inactive. Selecting Private Job or Stored Job along with Require PIN to Print activates the PIN box. The Stored Job/PIN coupling has a PIN restriction of four ASCII numeric characters (ASCII 0-30 through 0-39). If you enter non-numeric characters, they are removed immediately. If you enter more than four characters, the characters past the fourth are truncated. The field temporarily allows fewer than four digits in the string, but when the edit field loses focus, the zeroes pad the left end until there are exactly four digits. The default initialized value for the PIN is 0000 for Private Job and Stored Job with Require PIN to Print selected.

Private Job

This option allows you to send a print job directly to the printer memory. Selection of Private Job activates the PIN field. The print job can be printed only after you type a PIN in the printer control panel. After the job is printed, the printer removes the job from the printer memory. This feature is useful when you are printing sensitive or confidential documents that you do not want to leave in an output bin after printing. Private Job stores the print job on the hard disk or in printer RAM memory.

After it is released for printing, the private job is immediately deleted from the printer. If more copies are needed, you have to reprint the job from the program. If you send a second private job to the printer with the same user name and job name as an existing private job (and you have not released the original job for printing), the job will overwrite the existing job, regardless of the PIN. Private jobs are deleted if power to the printer is removed.

Stored Job

The **Stored Job** option allows you to send a print job directly to the printer hard disk. The print job will be stored in the printer as if it is an electronic file cabinet. After the print job is stored in the printer's hard disk, you can print the job from the printer control panel.

The job remains stored on the printer until it is deleted or overwritten by a document with the same user and job names. Stored jobs remain on the printer hard disk when power is interrupted. Use this feature for forms and other common or shared documents.

A stored job can be handled in two ways, as either a private or a public job. A private stored job allows you to send a print job directly to the printer memory and can be printed only after you type a PIN in the printer control panel. (You can set the PIN in the Print dialog box.) After the job is printed, the job remains in the printer memory and can be printed again from the printer control panel. This feature is useful when you are printing sensitive or confidential documents you do not want to leave in an output bin after printing. Private mode is initiated by clicking the Require PIN to Print check box. In this mode, a PIN entry at the control panel is required to release the job.

The box labeled PIN is usually inactive. The Require PIN to Print option is activated if you click Stored Job. If selected, you must enter a PIN to make the stored job private.

Note A private stored job is not the same as a private job (see above). Private jobs are deleted from the printer memory after they are printed. Private stored jobs are retained in the printer memory after printing, but require that a PIN be typed each time they are printed.

Document Identifiers used in Job Storage

When you use a Job Storage feature, your document is identified in the printer control panel by user name and job name.

User Name

The User Name edit box allows you to identify the job at the printer control panel. When the driver is first, this string initializes to the empty string (“”), but the dialog box detects this condition and replaces the string with your login name in Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, and Windows XP. The following describes the restrictions for the User Name field.

Job Name

The Job Name is used for specifying a name to identify the job on the printer control panel. When the driver is installed, this string is initialized to the empty string (" "), but the dialog box will detect this condition and replace the string with "Untitled". The following describes the restrictions for the Job Name field.

The Job Name and the User Name fields can contain no more than 16 characters each, and are limited to A through Z and 0 through 9, because the name is displayed on the printer control panel. If you try to enter a lowercase character, it automatically shifts to uppercase. If you try to enter a character with an ASCII code of less than 32 or greater than 126 characters, the character is removed from the edit field, along with all characters that follow it. If you try to enter more than 16 characters, any character beyond 16 is truncated. When the dialog box is closed, or the edit box loses focus, an empty string is replaced with “Untitled”. In those languages for which “Untitled” cannot be translated without the use of invalid characters, the driver uses a string of three dashes. The acceptable characters for job name and user name vary for each operating system. The string must be displayable on the printer control panel.

Using Job Storage options when printing

You can use Job Storage options in the Destination tab of the printer driver.

Note The printer driver installed on your computer must be configured to use the Job Storage features. See the "Configuring the printer driver for a printer hard disk" section.

1. Click Print from the software program. The Print dialog box appears.
2. Click Properties. The Properties dialog box appears.

3. Click the Destination tab to display the destination options.
4. Click Job Storage on the drop-down menu under Destination Features.
5. Click Settings… . The Job Storage Settings dialog box appears.
6. You can then select one of the Job Storage options described above by clicking the appropriate option button.

These instructions are specific to the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, and Windows XP environments using the latest available PCL 5e, PCL 6, and PS drivers.

Releasing stored jobs at the printer

Once you send a print job using Job Storage, you can release the job to print using the printer control panel.

1. Press the select button (the one with the check mark) to enter the menus.
2. Press the up and down buttons to scroll to RETRIEVE JOB, and then press the select button.
3. Press the up and down buttons to scroll to your job and press the select button.
4. Press the up and down buttons to scroll to PRINT. (The PRINT selection might have an icon next to it indicating that the job is locked. If so, type the PIN number, and then press the select button.) Press the select button.

Deleting a print job

Sometimes it is necessary to delete a print job from the printer memory or hard disk. This can be done from the printer control panel.

1. Press the select button (the one with the check mark) to enter the menus.
2. Press the up and down buttons to scroll to RETRIEVE JOB.
3. Press the up and down buttons to scroll to your job name and press the select button.
4. Press the up and down buttons to scroll to DELETE. (The DELETE selection might have an icon next to it indicating that the job is locked. If so, type the PIN number, and then press the select button.)

Output Bin Options

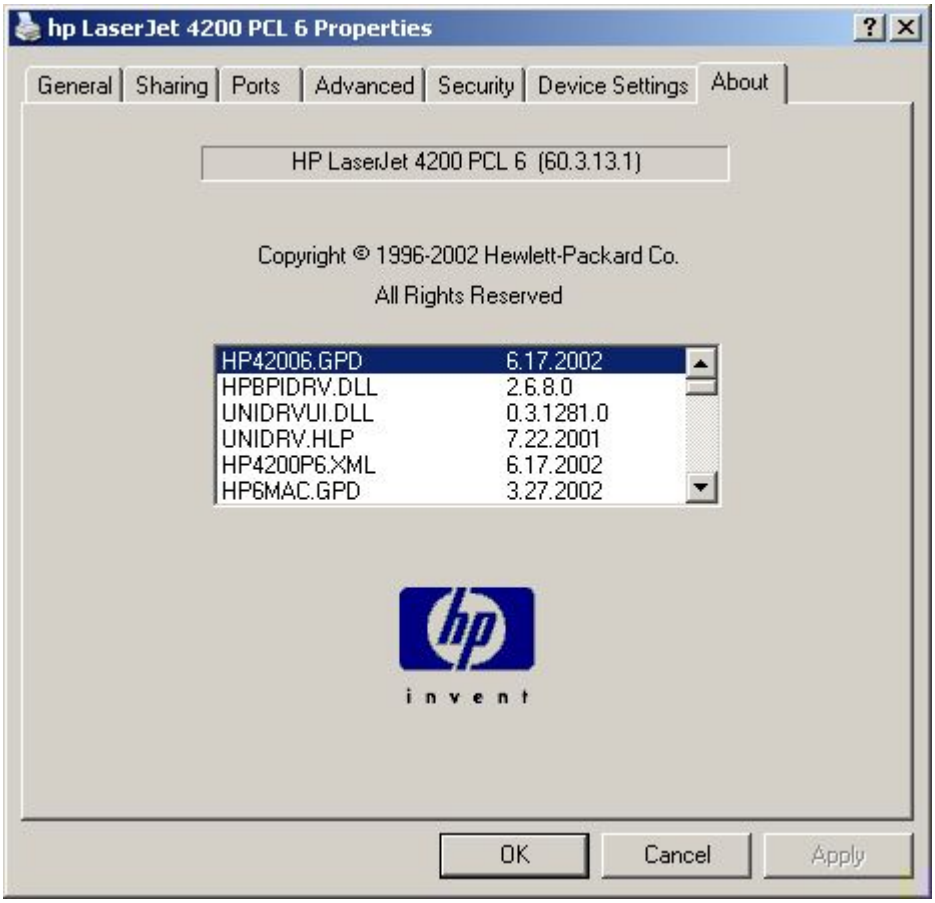
The Output Bin Options group box contains a drop-down menu that lets you select from a list of configured output bins. Only output bins configured on the Device Settings tab appear in this drop-down menu.

- Automatically Select. This is the default setting.
- Stacker Bin. The optional 500-Sheet Stacker is a single 500-sheet stacking device that accommodates up to 500 sheets of standard and custom-sized paper.
- Stacker Bin (Stapled). The optional 500-Sheet Stapler/Stacker is a single 500-sheet stapling and stacking device that accommodates up to 500 sheets of standard and custom-sized paper. The print job is directed to the output paper-handling device and receives a single staple. It provides stapling for up to 15 sheets of Letter, Legal, or A4 paper per document.
- Top Bin. The HP LaserJet 4200 and 4300 series printers have an output bin that can be selected in the driver. Output is delivered face-down.

The rear face-up bin also can be manually set for a straight paper path. Use the rear output door (straight-through paper path) when printing envelopes, labels, heavy- or light-weight paper, and other thick or special print media. Remove each sheet as it exits the printer.

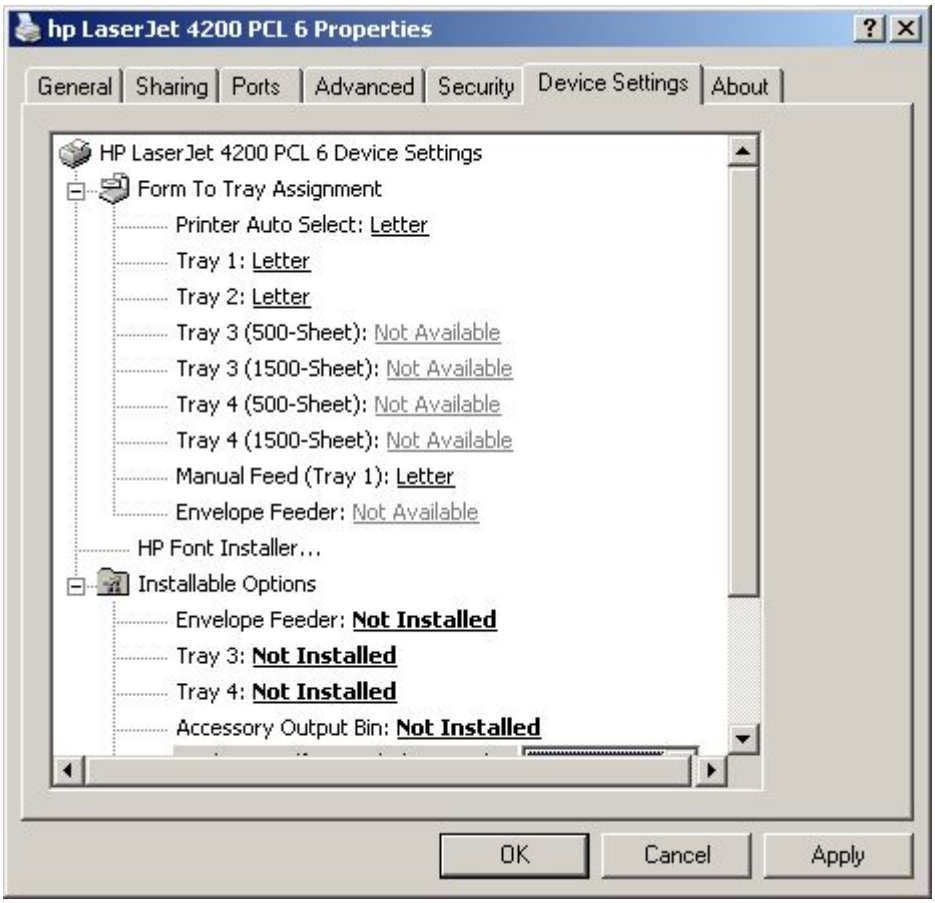
About tab

The About tab provides detailed information about the driver. It contains an overall build number (in parenthesis after the model name) along with specific information about each of the components. The information varies according to HP LaserJet model number, driver, date, and versions. The About tab is shown in the following illustration.



Device settings

The Device Settings tab communicates the hardware configuration of the printer to the driver. The Device Settings tab sheet appears whenever the driver is opened from the Printers folder by selecting and right-clicking the printer, and then clicking Properties… for the driver. When the driver is opened from within a program, the Device Settings tab is not visible. When opened from the Printers folder, the Device Settings tab appears, as shown in the following illustration.



LaserJet 4200 and 4300 series printers can support either the HP 500-Sheet Stacker or the HP 500-Sheet Stacker/ Stapler.

Duplex Unit (for 2-Sided Printing)

If a duplexing unit is installed in the printer, select Duplex Unit (for 2-Sided Printing):, and then click Installed. When installed, the Print on Both Sides control will appear in the Layout tab. You can turn duplexing off or enable either long or short edge duplexing.

Printer Hard Disk

If a hard disk is installed in the printer, select Printer Hard Disk, and then click Installed. The printer hard disk enables additional features, such as additional Job Storage options, mopying, and downloading fonts and forms to the printer's hard disk. The utility to download and manage fonts and forms is separate from the driver. The driver does not explicitly support fonts and forms on the printer's hard disk.

Mopier Enabled

A mopier is an HP-designed printer that produces multiple, collated copies from a single print job. Multiple-original printing (mopying) increases printer performance and reduces network traffic by sending the job to the printer once, then storing it on the hard disk. The remainder of the copies are printed at the printer's fastest speed. All documents can be created, controlled, managed, and finished from the desktop, which eliminates the extra step of using a photocopier.

The HP LaserJet 4200 and 4300 series printers support the Transmit Once mopying feature, and the Mopier Enabled option is enabled by default, if a hard disk is installed and the Printer Hard Disk setting is **Installed** in the Device Settings tab.

The driver determines whether the printer is capable of mopying by the presence of the Collate feature in a PPD/GPD along with any constraints that may apply (for example, requiring that a hard disk be installed in the printer). The driver automatically performs collation by checking the Collate check box in the program print dialog box. If the printer is properly configured, the printer performs the collation; otherwise, the spooler collates the print job. Likewise, if you clear the "Collate" check box in the program, the copies will not be collated. The following table shows the results of various driver Mopier Mode and collation settings.

Mopier mode and collation

Table 17: Driver Mopier mode and collation settings

Mopier mode	Application collation	Driver collation	Expected result
Disabled	Clear (not selected)	Clear	3 copies uncollated
Disabled	Clear	Selected	3 copies uncollated
Disabled	Selected	Clear	3 copies collated by OS
Disabled	Selected	Selected	3 copies collated by OS
Enabled	Clear	Clear	3 copies uncollated
Enabled	Clear	Selected	3 copies uncollated
Enabled	Selected	Clear	3 copies collated by Printer
Enabled	Selected	Selected	3 copies collated by Printer

Form to Tray Assignment

Form to Tray Assignment allows a network administrator to specify the paper size contained in each physical paper tray on the printer.

Many printers support more than one source of paper, such as upper and lower trays. You can assign a form (which defines the paper size and margins) to each of your printer's paper sources. Once a form is matched to a source, you can select the form when you print from your programs. The printer prints from the tray to which that form is assigned.

The purpose of the form to tray section allow network administrators to specify, for the driver, the media sizes that are loaded into each of the available paper trays. The use of forms constrains the choices available in the media-size lists on the Paper tab. This constraint prevents (or reduces the likelihood of) tying up the printer with paper-mount messages caused by users who request sizes or types that are not available.

Note Changes made to the Device Settings tab are not reflected in the Printing Preferences until the modified device settings have been applied. For example, the duplexing unit will not appear until you have modified the Device Settings tab, applied the settings, and then re-entered Printing Preferences.

HP LaserJet 4200/4300 software CD-ROM

Availability and fulfillment

Web deployment

Software and firmware to support HP LaserJet 4200 and 4300 series printers are available for download from the following Web sites:

http://www.hp.com/go/lj4200_software

http://www.hp.com/go/lj4300_software

http://www.hp.com/go/lj4200_firmware

http://www.hp.com/go/lj4300_firmware

This is the preferred method for obtaining the latest software and firmware. The Web sites offers a notification option for automatic e-mail notification about new software and firmware releases.

Printing-system software

The HP LaserJet printing system software is available for download from the HP Web site at the following URL:

http://www.hp.com/go/lj4200_software

http://www.hp.com/go/lj4300_software

The software supports the following operating systems:

- Windows 95, Windows 98, and Windows Me
- Windows NT 4.0, Windows 2000, and Windows XP

Printer firmware

Firmware to support the HP LaserJet 4200 and 4300 series printers is available for download from the HP Web site at the following URLs:

http://www.hp.com/support/lj4200_firmware

http://www.hp.com/support/lj4300_firmware

Use the notification option to be notified of new firmware releases.

Standalone drivers

The HP LaserJet PCL 5e, PCL 6, and PS drivers are available individually to support the following operating systems:

- Windows 95, Windows 98, and Windows Me
- Windows NT 4.0
- Windows 2000
- Windows XP

Note PCL 5e is not supported in Asian languages.

Operating system driver bundles

The HP LaserJet 4200 and 4300 PCL 5e, PCL 6, and PS drivers are available in bundled configurations to support the following operating systems:

- Windows 95, Windows 98, and Windows Me
- Windows NT 4.0
- Windows 2000 and Windows XP

Point-and-print bundles

The HP LaserJet PCL 6 driver is available in a point-and-print bundle to support the Windows operating environments.

Other operating systems

Drivers and related software are available for these additional operating environments:

- Macintosh OS (PPDs and Universal Installer)
- OS/2 (PCL 5e,and PS)

Software component availability

The following table lists the availability of HP LaserJet software components by operating system.

Note In the following table, "9x/Me" refers to Windows 95, Windows 98, and Windows Me. "2K" refers to Windows 2000; "4.0" refers to Windows NT 4.0; and "XP" refers to Windows XP.

Table 19: Software component availability for HP LaserJet 4200 and 4300 series printers

Component	9x/Me	4.0	2K/XP	OS/2	Mac	UNIX	Linux
Drivers							
PCL 6	X	X	X				
PCL 5e	X	X	X				
PCL 6 Unidriver			X				
PCL 5 Unidriver			X				
PScript Driver & Postscript Printer Description (PPD)	X	X	X				
Mac QuickDraw PPD					X		
OS/2 IBM Drivers				X			
	X	X					
Unix Model Script						X	
Linux Printing Architecture							X
Installers							
Common Windows Installer	X	X	X				
CD-ROM Browser	X	X	X				
Customization Utility	X	X	X				
Fonts	X	X	X				
INF File (Add Printer)	X	X	X				
Font Installer**1**							
Macintosh Installer for OSs 8 and 9					X		
Macintosh Installer for OS X					X		
Web Registration	X	X	X				
Bidirectional communication							
Network Bidirectional Communications	X	X	X				
Direct Connect Bidirectional Communications	X	X	X				
Enterprise Autoconfiguration	X	X	X				
Proxy server	X	X	X				
Remote management and status							
Web JetAdmin		X					X
Applet for Web JetAdmin		X	X			X	
Macintosh LJ Utility					X		
Printer Status and Alerts	X	X	X				
Autoconfiguration	X	X	X				
Online Documentation							
Adobe Acrobat Reader	X	X	X		X		
HP LaserJet 4200 and 4300 User Guide	X	X	X		X		

Component	9x/Me	4.0	2K/XP	OS/2	Mac	UNIX	Linux
HP LaserJet 4200 and 4300 series printer Installation	X	X	X		X		
HP LaserJet 4200 and 4300 series printer Release Notes	X	X	X		X		
HP Jetdirect Guide	X	X	X		X		
HP Fast InfraRed Receiver Guide	X	X	X				
Mac PS Help					X		
Help	X	X	X		X		
Other							
PS Fonts	X	X	X				
PS Fonts DIMM	X	X	X		X		

[1]Supported as a standalone utility.

Software component localization

The following table provides localization information about the HP LaserJet Series Printing system software. The information in this table does not necessarily reflect in-box solutions.

Components that are not available in any given language are supported in English.

Table 20: Software component localization for the HP LaserJet 4200 and 4300 series printers

Component	Operating System	AR	EN	FR	IT	GE	SP	JN	KO	TC	SC	TH	SW	DU	PG	NW	FN	DN	CZ	PO	RU	HU	TU
PS PPD	9**x**, 4.0, 2000, XP	x	x	x	x	x	x	x	x	x	x	x[1]	x	x	x	x	x	x	x	x	x	x	x
Printer Status and Alerts	9**x**, 4.0, 2000, XP	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
Macintosh PS PPD	Mac	x[2]	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x		x		x
Macintosh LJ Utility	Mac		x	x	x	x	x						x	x	x	x	x	x					
Macintosh Installation Notes	Mac		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x		x		x
PCL 6	9**x**, 4.0, 2000, XP	x	x	x	x	x	x	x	x	x	x	x[2]	x	x	x	x	x	x	x	x	x	x	x
PCL 5c	9**x**, 4.0, 2000, XP	x	x	x	x	x	x					x[2]	x	x	x	x	x	x	x	x	x	x	x
Printing System Installation Notes ReadMe	9**x**, 4.0, 2000, XP	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
Printing System Release Notes (Late-breaking ReadMe)	9**x**, 4.0, 2000, XP		x																				
Common Windows Installer	9**x**, 4.0, 2000	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
Web JetAdmin	4.0, 2000, UNIX		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
Web JetAdmin Help	4.0, 2000, UNIX		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x

Component	Operating System	AR	EN	FR	IT	GE	SP	JN	KO	TC	SC	TH	SW	DU	PG	NW	FN	DN	CZ	PO	RU	HU	TU
HP Web Access			x	x	x	x	x	x					x	x	x	x	x	x	x	x	x	x	x
Online manuals (PDF)	9**x**, 4.0, 2000, XP		x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x
IBM OS/2 Driver - PCL 5c	OS/2		x	x	x	x	x						x	x	x	x	x	x					
IBM OS/2 Driver - PS	OS/2		x	x	x	x	x						x	x	x	x	x	x					
Standard Fonts	9**x**, 4.0, 2000, XP	x	x	x	x	x	x	x					x	x	x	x	x	x	x	x	x	x	x
PS 3 Fonts	9**x**, 4.0, 2000, XP	x	x	x	x	x	x	x					x	x	x	x	x	x	x	x	x	x	x

[1]For the Windows NT 4.0 operating system, the English driver is used.

[2]The English driver is used.

Language Key:

AR = Arabic

CZ = Czech

DN = Danish

DU = Dutch

EN = English

FN = Finnish

FR = French

GE = German

HE = Hebrew

HU = Hungarian

IT = Italian

JN = Japanese

KO = Korean

NW = Norwegian

PG = Portuguese

PO = Polish

RU = Russian

SC = Simplified Chinese

SW = Swedish

SP = Spanish

TC = Traditional Chinese

TH = Thai

TU = Turkish

Driver support tables for the HP LaserJet 4200 and 4300 series printers

The following tables detail the software features available for each driver type and for each supported operating system supported by the HP LaserJet 4200 and 4300 series printers.

Job stream output

Table 21: Driver support for job stream output feature

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
PCL 6 support	X			X			X				
PCL5 support		X			X			X			
PCL6 passthrough support	X			X			X				
XL 3.0	X			X			X				
XL color											
PostScript level 3			X			X				X	X
PostScript level 1.2			X			X			X	X	X
PRN file driver identification	X	X	X	X	X	X	X	X	X	X	X
Job accounting information	X	X	X	X	X	X	X	X	X	X	X
UTF-8 encoding for PJL	X	X	X	X			X				

Driver Management and Configuration utility

Table 25: Driver support for DMC utility feature

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
Preconfiguration	X	X	X	X	X		X	X			
Feature lockout	X	X	X	X	X		X	X			
Enterprise Autoconfiguration (EAC)	X	X	X	X	X		X	X			
Continuous export	X	X	X	X	X		X	X			

Help features

Table 27: Driver support for Help features

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
What's this Help (F1)	X	X	X	X	X	X	X	X	X	X	X
Help button	X	X	X	X	X		X	X			
Bubble Help				X	X		X	X			
MS Windows "?" Help	X	X	X	X	X	X	X	X	X	X	X

Constraint support

Table 28: Driver support for constraints

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
Constraint messages	X	X	X	X	X	X	X	X	X	X	X
Gray-out options				X	X		X	X			
Constraint warnings by symbol	X	X	X			X			X	X	X

Job storage

Table 30: Driver support for job storage features

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
Proof and hold	X	X	X	X	X	X	X	X	X	X	X
Private job	X	X	X	X	X	X	X	X	X	X	X
Quick copy	X	X	X	X	X	X	X	X	X	X	X
Stored job	X	X	X	X	X	X	X	X	X	X	X
Job name	X	X	X	X	X	X	X	X		X	X
User name	X	X	X	X	X	X	X	X	X	X	X
PIN	X	X	X	X	X	X	X	X	X	X	X
Unicode for job and user name	X	X	X	X	X	X	X	X		X	X
Automatic job and user name											

Custom preference storage/recall

Table 31: Driver support for custom preference storage/recall features

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
Quick sets				X	X		X	X			
Print quality	X	X	X	X	X		X	X			
Color options	X	X	X	X	X						

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
Use HP MEt/use more memory											
PCL6 (standard/ enhanced)											
Resolution (ProRes 1200 180 lpi)		X	X	X			X				
Resolution (ProRes 1200 212 lpi)		X		X			X				
Resolution (FastRes 1200)	X	X	X	X		X	X		X	X	X
Resolution (600 dpi)	X	X	X	X	X	X	X	X	X	X	X
Resolution (300 dpi)	X				X	X		X	X	X	X
Manually print on 2nd side	X	X	X								
Photo paper printing											
RET	X	X	X	X	X	X	X	X	X	X	X
Scale patterns (WYSIWYG)	X	X	X	X	X		X				
General device font support											
Hebrew, Greek, Arabic, Cyrillic device fonts											
Font DIMM (on/ off)	X	X		X	X		X	X			
Send TrueType as bitmaps	X	X	X	X	X		X	X			
TrueType fonts	X	X	X			X			X	X	X
Levels of gray											
Edge to edge	X	X	X								
Print text as black	X	X	X	X	X		X	X			
CYMK inks											
Print in grayscale											
Text neutral grays											
Text halftone											
Graphics neutral grays											
Graphics halftone											
Photographs neutral grays											
Photographs halftones											
Color edge control											
Color rendering (RGB/device)											
Alienation											
Better mobile printing											

Watermarks

Table 33: Driver support for watermarks feature

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
First page only	X	X	X	X	X	X	X	X	X	X	X
Custom watermark definition	X	X	X	X	X	X	X	X	X	X	X
Watermark angle	X	X	X	X	X	X	X	X	X	X	X
Watermark font name	X	X	X	X	X	X	X	X	X	X	X
Watermark font color	X	X	X	X	X	X	X	X	X	X	X
Watermark font shading	X	X	X	X	X	X	X	X	X	X	X
Watermark font size	X	X	X	X	X	X	X	X	X	X	X
Watermark font style	X	X	X	X	X	X	X	X	X	X	X

Paper types

Table 35: Driver support for paper types

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
Unspecified	X	X	X	X	X	X	X	X	X	X	X
Plain	X	X	X	X	X	X	X	X	X	X	X
Preprinted	X	X	X	X	X	X	X	X	X	X	X
Letterhead	X	X	X	X	X	X	X	X	X	X	X
Transparency	X	X	X	X	X	X	X	X	X	X	X
Prepunched	X	X	X	X	X	X	X	X	X	X	X
Labels	X	X	X	X	X	X	X	X	X	X	X
Bond	X	X	X	X	X	X	X	X	X	X	X
Recycled	X	X	X	X	X	X	X	X	X	X	X
Color	X	X	X	X	X	X	X	X	X	X	X
Light < 75 g/m2											
Heavy (106 - 163 g/m2)											
Cardstock > 164 g/m2	X	X	X	X	X	X	X	X	X	X	X
Glossy (75 - 105 g/m2)											
Heavy glossy											
Tough paper											
Rough	X	X	X	X	X	X	X	X	X	X	X
Envelope	X	X	X	X	X	X	X	X	X	X	X
User type 1				X	X		X	X			
User type 2				X	X		X	X			
User type 3				X	X		X	X			
User type 4				X	X		X	X			
User type 5				X	X		X	X			
Display media types as sources	X	X	X	X	X		X	X			

Paper sources

Table 36: Driver support for paper sources

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
Autoselect	X	X	X	X	X	X	X	X	X	X	X
Manual feed	X	X	X	X	X	X	X	X	X	X	X
Envelope feeder	X	X	X	X	X	X	X	X	X	X	X
HCI input	X	X	X	X	X	X	X	X	X	X	X
Tray 1	X	X	X	X	X	X	X	X	X	X	X
Tray 2	X	X	X	X	X	X	X	X	X	X	X
Tray 3	X	X	X	X	X	X	X	X	X	X	X
Tray 4	X	X	X	X	X	X	X	X	X	X	X
Assign paper size to tray	X	X	X	X	X	X			X	X	X
Assign paper type to tray	X	X	X	X	X	X			X	X	X

Alternate source/paper type

Table 37: Driver support for alternate source/paper type feature

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
All pages the same	X	X	X	X	X	X	X	X	X	X	X
Other pages	X	X	X	X	X		X	X			
Back cover	X	X	X	X	X		X	X			

Printing destination

Table 38: Driver support for printing destination feature

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
Top bin (face down)	X	X	X	X	X	X	X	X	X	X	X
Top bin (face up)											
Stacker	X	X	X	X	X	X	X	X	X	X	X
Stapler	X	X	X	X	X	X	X	X	X	X	X
Booklet bin											
Straight paper path											

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
Dutch	X	X	X	X	X	X	X	X	X	X	X
English	X	X	X	X	X	X	X	X	X	X	X
Finnish	X	X	X	X	X	X	X	X	X	X	X
French	X	X	X	X	X	X	X	X	X	X	X
German	X	X	X	X	X	X	X	X	X	X	X
Hebrew	X	X	X	X	X	X	X	X	X	X	X
Hungarian	X	X	X	X	X	X	X	X	X	X	X
Italian	X	X	X	X	X	X	X	X	X	X	X
Korean	X	X	X	X		X	X		X	X	X
Norwegian	X	X	X	X	X	X	X	X	X	X	X
Polish	X	X	X	X	X	X	X	X	X	X	X
Portuguese	X	X	X	X	X	X	X	X	X	X	X
Russian	X	X	X	X	X	X	X	X	X	X	X
Spanish	X	X	X	X	X	X	X	X	X	X	X
Thai	X	X	X	X	X	X	X	X	X	X	X
Turkish	X	X	X	X		X	X		X	X	X
Japanese	X	X	X	X		X	X		X	X	X

PostScript specific

Table 41: Driver support for PostScript-specific features

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
	PCL6	PCL5	PS	PCL6	PCL5	PS	PCL6	PCL5	PS	PS	PS
Font substitution			X			X			X		
PostScript memory			X			X			X		
Output protocol			X			X			X		
Send CTRL-D before each job			X			X			X		
Send CTRL-D after each job			X			X			X		
Convert gray text to PostScript gray			X								
Convert gray graphics to PostScript gray			X								
Add Euro currency symbol			X								
Job timeout			X			X			X		
Wait timeout			X			X			X		
Minimum font size to download as outline			X			X					
Minimum font size to download as bitmap			X			X					
PostScript language level			X			X			X		
Send PostScript error handler			X			X			X		
Mirrored output			X			X			X		
Negative output			X			X			X		

	Windows XP (64 & 32) Windows 2000			Windows NT 4.0			Windows 95, 98, Me			Mac	OS2
PostScript output option											
Optimize for speed			X			X			X		
Optimize for portability			X			X			X		
Encapsulated PostScript (EPS)			X			X			X		
Archive format			X			X			X		
TrueType font download option											
Outline			X			X			X		
Bitmap			X			X			X		
Native TrueType			X			X			X		

4 Installing Windows printing system components

Introduction

The information that follows addresses the following topics:

- Supported operating systems
- System requirements
- Font support
- General Windows installation instructions
- Detailed Windows installation instructions
- Setting a default printer

Supported operating systems

The HP LaserJet 4200 and 4300 series printing system software supports the following operating systems:

- Windows 95
- Windows 98
- Windows Me
- Windows NT 4.0
- Windows 2000
- Windows XP

Note Windows operating systemsprinter support for Windows 3.1xprinterssupport for Windows 3.1xThe HP LaserJet 4200 and 4300 series printers have not been tested with and do not support Windows 3.1x.

System requirements

Following are the system requirements for installing and using the HP LaserJet printing system software on each of the supported operating systems.

- Pentium (R) processor
- Minimum 16-color/grayscale display with 640-by-480 pixel resolution (video graphics array [VGA])
- Same amount of RAM as the minimum requirements for the operating system
- 93 MB of available disk space for full installation (on the same partition as the operating system)

Font support

Basic fonts

Microsoft Windows software includes these basic fonts, which can be used with any HP printer:

- Arial
- Courier New Italic
- Times New Roman Italic
- Arial Italic
- Courier New Bold
- Times New Roman Bold
- Arial Bold
- Courier New Bold Italic
- Times New Roman Bold Italic
- Arial Bold Italic
- Symbol
- Wingdings
- Courier New
- Times New Roman

Default fonts

The following default fonts are installed through a Typical Installation of the HP LaserJet printing system software.

Table 42: Default fonts

File name	Font name
albr85w.TTF	Albertus Extra Bold
albr55w.TTF	Albertus Medium
olvr55w.TTF	Antique Olive
olvr75w.TTF	Antique Olive Bold
olvr56w.TTF	Antique Olive Italic
cgor45w.TTF	CG Omega
cgor65w.TTF	CG Omega Bold
cgor66w.TTF	CG Omega Bold Italic
cgor46w.TTF	CG Omega Italic
cgtr45w.TTF	CG Times
cgtr65w.TTF	CG Times Bold
cgtr66w.TTF	CG Times Bold Italic
cgtr46w.TTF	CG Times Italic
clar67w.TTF	Clarendon Condensed Bold
coronet.TTF	Coronet
cpsr45w.TTF	CourierPS
cpsr65w.TTF	CourierPS Bold
cpsr66w.TTF	CourierPS Bold Oblique
cpsr46w.TTF	CourierPS Oblique
garr45w.TTF	Garamond
garr65w.TTF	Garamond Bold
garr46w.TTF	Garamond Italic

File name	Font name
garr66w.TTF	Garamond Kursiv Halbfett
helr45w.TTF	Helvetica
helr65w.TTF	Helvetica Bold
helr66w.TTF	Helvetica Bold Oblique
helr47w.TTF	Helvetica Narrow
helr67w.TTF	Helvetica Narrow Bold
helr68w.TTF	Helvetica Narrow Bold Oblique
helr48w.TTF	Helvetica Narrow Oblique
helr46w.TTF	Helvetica Oblique
avgr45w.TTF	ITC Avant Garde Gothic Book
avgr46w.ttg	ITC Avant Garde Gothic Book Oblique
avgr65w.TTF	ITC Avant Garde Gothic Demi
avgr66w.TTF	ITC Avant Garde Gothic Demi Oblique
bokr75w.TTF	ITC Bookman Demi
bokr76w.TTF	ITC Bookman Demi Italic
bokr35wq.TTF	ITC Bookman Light
bokr36w.TTF	ITC Bookman Light Italic
chanc___.TTF	ITC Zapf Chancery Medium Italic
dings___.TTF	ITC Zapf Dingbats
letr65w.TTF	Letter Gothic
letr65w.TTF	Letter Gothic Bold
letr46w.TTF	Letter Gothic Italic
marigold.TTF	Marigold
ncsr75w.TTF	New Century Schoolbook Bold
ncsr76w.TTF	New Century Schoolbook Bold Italic
ncsr56w.TTF	New Century Schoolbook Italic
ncsr55w.TTF	New Century Schoolbook Roman
palr65w.TTF	Palatino Bold
palr66w.TTF	Palatino Bold Italic
palr46w.TTF	Palatino Italic
palr45w.TTF	Palatino Roman
symps__.TTF	SymbolPS
timr65w.TTF	Times Bold
timr66w.TTF	Times Bold Italic
timr46w.TTF	Times Italic
timr45w.TTF	Times Roman
unvr65w.TTF	Univers Bold
unvr66w.TTF	Univers Bold Italic
unvr67w.TTF	Univers Condensed Bold
unvr68w.TTF	Univers Condensed Bold Italic
unvr57w.TTF	Univers Condensed Medium
unvr58w.TTF	Univers Condensed Medium Italic
unvr55w.TTF	Univers Medium
unvr56w.TTF	Univers Medium Italic

Ninety-two additional PS 3 fonts are also available on the CD-ROM.

Table 43: Additional PS 3 fonts

File name	Font name
PS_12639.TTF	Albertus MT
PS_12640.TTF	Albertus MT Italic
PS_14530.TTF	Albertus MT Light
PS-11120.TTF	Antique Olive CompactPS
PS_11119.TTF	Antique Olive Roman

File name	Font name
PS_11118.TTF	Antique Olive Roman Bold
PS_11846.TTF	Antique Olive Roman Italic
PS_24516.TTF	Apple Chancery Italic
PS_12704.TTF	Bodoni Poster
PS_14508.TTF	Bodoni PosterCompressed
PS_12581.TTF	BodoniPS
PS_12585.TTF	BodoniPS Bold
PS_12586.TTF	BodoniPS Bold Italic
PS_12582.TTF	BodoniPS Italic
PS_24517.TTF	Candid
PS_24518.TTF	Chicago
PS_14513.TTF	Clarendon Light
PS_10269.TTF	ClarendonPS
PS_12968.TTF	ClarendonPS Bold
PS_10369.TTF	Cooper Black
PS_10370.TTF	Cooper Black Italic
PS_14514.TTF	Copperplate32bc
PS_14515.TTF	Copperplate33bc
PS_10249.TTF	Coronet
PS_10267.TTF	Eurostile
PS_10268.TTF	Eurostile Bold
PS_14512.TTF	Eurostile Bold ExtendedTwo
PS_14511.TTF	Eurostile ExtendedTwo
PS_10267.TTF	Eurostile Medium
PS_24509.TTF	Geneva
PS_13872.TTF	GillSans
PS_13874.TTF	GillSans Bold
PS_13875.TTF	GillSans Bold Italic
PS_14053.TTF	GillSans Condensed
PS_14054.TTF	GillSans Condensed Bold
PS_14051.TTF	GillSans ExtraBold
PS_13873.TTF	GillSans Italic
PS_13870.TTF	GillSans Light
PS_13871.TTF	GillSans Light Italic
PS_12542.TTF	Goudy
PS_12544.TTF	Goudy Bold
PS_10695.TTF	Goudy Bold Italic
PS_12545.TTF	Goudy ExtraBold
PS_12543.TTF	Goudy Italic
PS_14526.TTF	Helvetica Condensed
PS_14528.TTF	Helvetica Condensed Bold
PS_14529.TTF	Helvetica Condensed Bold Italic
PS_14527.TTF	Helvetica Condensed Italic
PS_24519.TTF	Hoefler Text
PS_24521.TTF	Hoefler Text Black
PS_24522.TTF	Hoefler Text Black Italic
PS_24520.TTF	Hoefler Text Italic
PS_24523.TTF	Hoefler Text Ornaments
PS_14503.TTF	Joanna MT
PS_14505.TTF	Joanna MT Bold
PS_14506.TTF	Joanna MT Bold Italic
PS_14504.TTF	Joanna MT Italic
PS_13778.TTF	Letter Gothic Italic

File name	Font name
PS_13777.TTF	Letter GothicPS
PS_13779.TTF	Letter GothicPS Bold
PS_13780.TTF	Letter GothicPS Bold Italic
PS_12675.TTF	Lubalin Graph
PS_12677.TTF	Lubalin Graph Bold
PS_12625.TTF	Lubalin Graph Bold Italic
PS_12623.TTF	Lubalin Graph Italic
PS_94073.TTF	Marigold
PS_14525.TTF	Mona Lisa Recut
PS_24524.TTF	Monaco
PS_24510.TTF	New York
PS_12506.TTF	Optima
PS_12510.TTF	Optima Bold
PS_12511.TTF	Optima Bold Italic
PS_12507.TTF	Optima Italic
PS_14072.TTF	Oxford Italic
PS_11546.TTF	Stempel Garamond Roman Italic
PS_11545.TTF	StempelGaramond Roman
PS_11547.TTF	StempelGaramond Roman Bold
PS_11548.TTF	StempelGaramond Roman Bold Italic
PS_14507.TTF	Taffy
PS_13501.TTF	Univers 45 Light
PS_14023.TTF	Univers 45 Light Bold
PS_14024.TTF	Univers 45 Light Bold Italic
PS_13502.TTF	Univers 45 Light Italic
PS_14030.TTF	Univers 47 Condensed Light Bold
PS_14040.TTF	Univers 47 CondensedLIght Bold Italic
PS_14021.TTF	Univers 55
PS_14022.TTF	Univers 55 Italic
PS_14029.TTF	Univers 57 Condensed
PS_14039.TTF	Univers 57 Condensed Italic
PS_13548.TTF	Univers Extended Italic
PS_13547.TTF	Univers ExtendedPS
PS_14481.TTF	Univers ExtendedPS Bold Italic
PS_14480.TTF	Univers ExtendedPS Italic

Installation instructions

Installing from the printing-system CD-ROM

To install the HP LaserJet printing system from the CD-ROM that came with your printer, follow these instructions:

1. Close all programs.
2. Insert the CD-ROM in the CD-ROM drive.

Note If your CD-ROM does not start automatically, click Start, click Run, and then browse to and click the SETUP.EXE file in the root location of the CD-ROM.

3. Click **Install Printer** and follow the onscreen prompts.

Installing from a network or from downloaded files

Follow these instructions if you downloaded the files from the Web, or if you are installing the printing system files from a network. You might need to see your network administrator for the location of the printing system software file.

1. Browse to the location of the SETUP.EXE file.
2. Double-click the SETUP.EXE file.
3. Click **Install Printer** and continue to follow the instructions until the printer is installed. For detailed installation instructions, see "Detailed Windows installation."

Detailed Windows installation

Figure 48: Choose Setup Language dialog box

Note The Choose Setup Language dialog box lists only the languages available on the particular HP LaserJet software CD-ROM you are using.

Table 44: Choose Setup Language dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Choose Setup Language	Select the language for this installation from following the choices: OK [button] Cancel [button]	The installer automatically detects your computer system language and presents this choice as the default. You can select another language available on the CD-ROM by clicking the down arrow of the drop-down menu. Click **OK** to initiate the printing system setup. Click **Cancel** to go to the **Exit Setup** dialog box.

Next, the **Setup** dialog box appears.

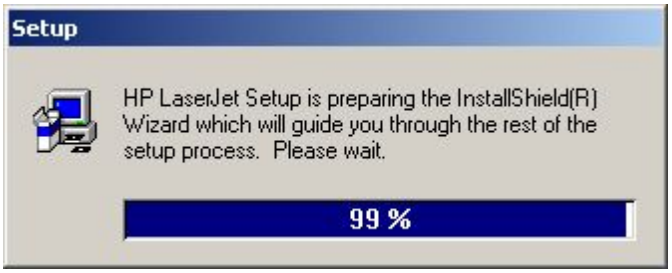
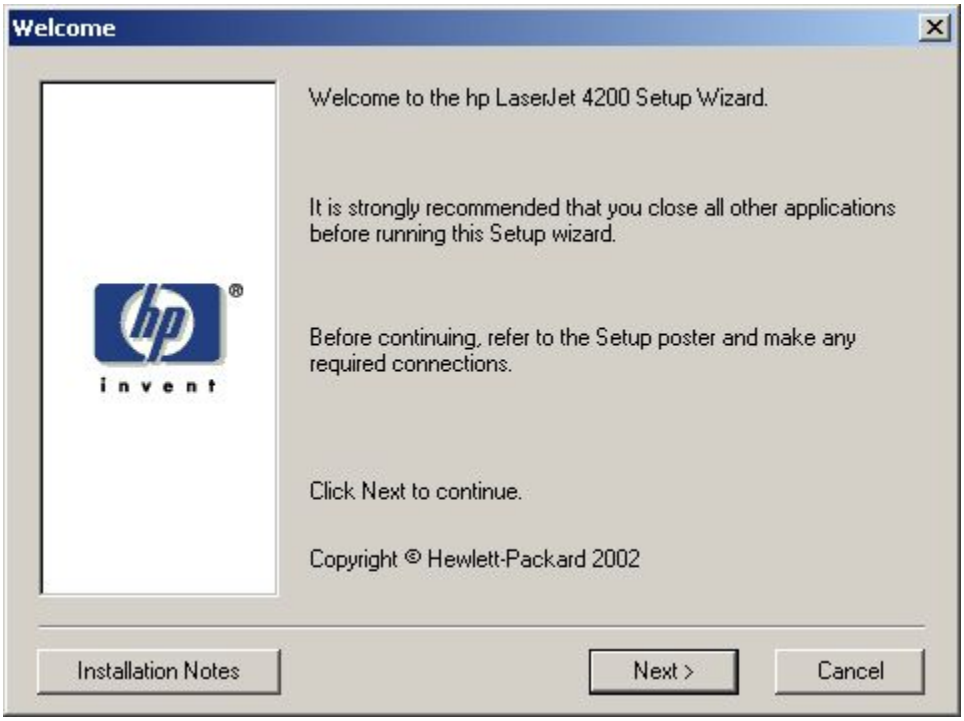

Setup
HP LaserJet Setup is preparing the InstallShield(R) Wizard which will guide you through the rest of the setup process. Please wait.
99 %

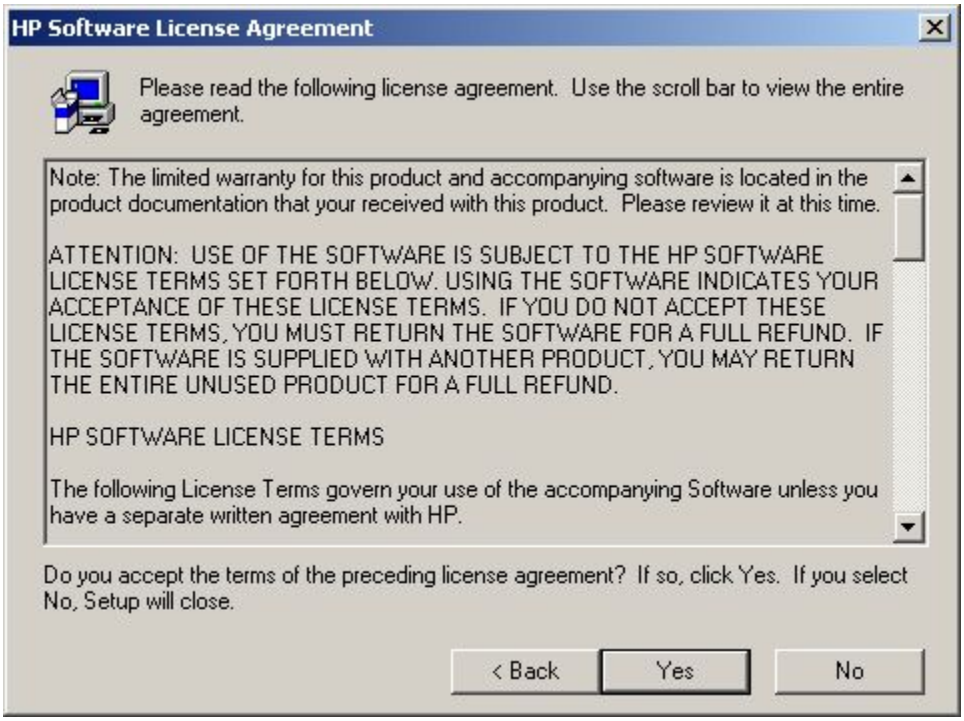
Figure 49: Setup dialog box

Note While the Setup dialog box appears, the installer is decompressing files into the system Temp directory. The elapsed time to complete this action depends upon the performance of the system.

Table 45: Setup dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Setup	HP LaserJet 4200 or HP LaserJet 4300 Series Printing System Setup is preparing the InstallShield (R) Wizard that will guide you through the rest of the setup process. Please wait.	No user options. This is an information-only dialog box.


Welcome
Welcome to the hp LaserJet 4200 Setup Wizard.
It is strongly recommended that you close all other applications before running this Setup wizard.
Before continuing, refer to the Setup poster and make any required connections.
Click Next to continue.
Copyright © Hewlett-Packard 2002
invent
Installation Notes
Next >
Cancel

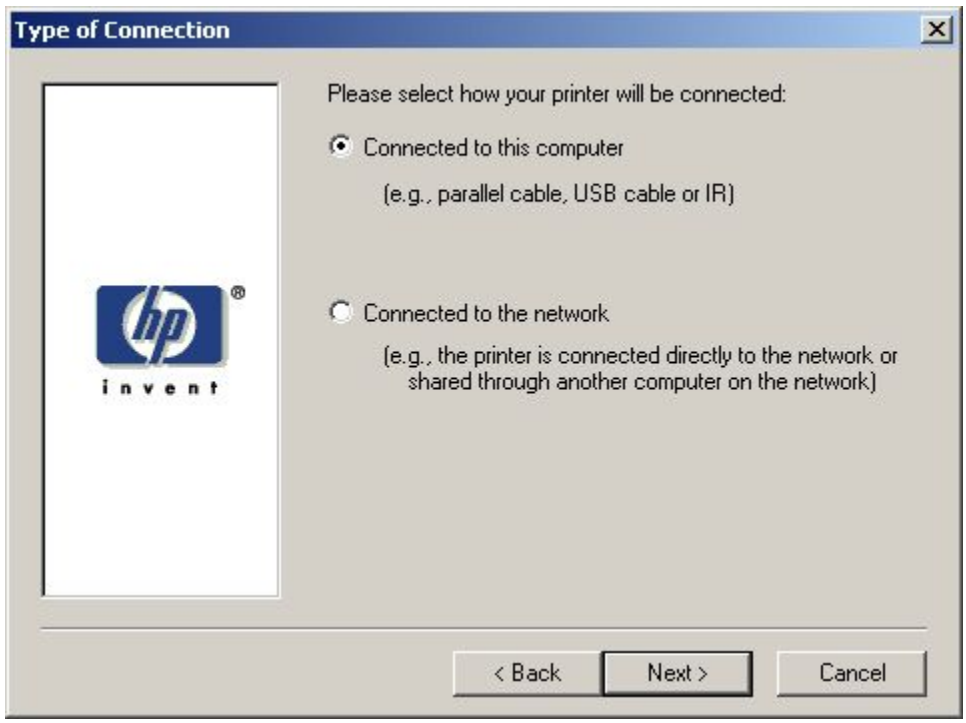

HP Software License Agreement
Please read the following license agreement. Use the scroll bar to view the entire agreement.
Note: The limited warranty for this product and accompanying software is located in the product documentation that your received with this product. Please review it at this time.
ATTENTION: USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS SET FORTH BELOW. USING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE LICENSE TERMS. IF YOU DO NOT ACCEPT THESE LICENSE TERMS, YOU MUST RETURN THE SOFTWARE FOR A FULL REFUND. IF THE SOFTWARE IS SUPPLIED WITH ANOTHER PRODUCT, YOU MAY RETURN THE ENTIRE UNUSED PRODUCT FOR A FULL REFUND.
HP SOFTWARE LICENSE TERMS
The following License Terms govern your use of the accompanying Software unless you have a separate written agreement with HP.
Do you accept the terms of the preceding license agreement? If so, click Yes. If you select No, Setup will close.
< Back
Yes
No

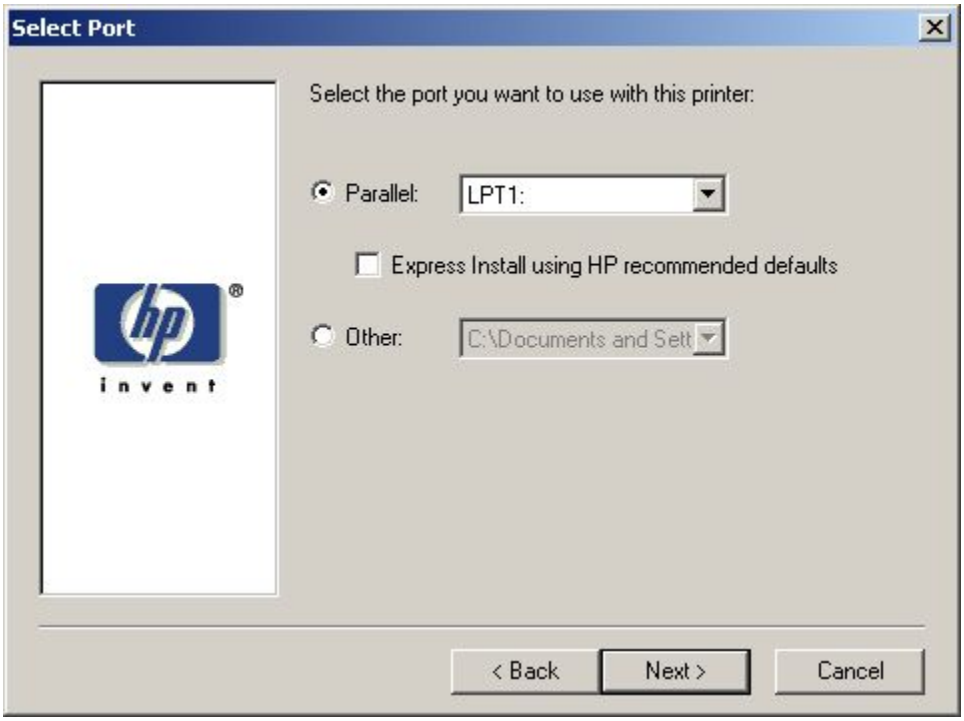
Web Update
Setup can look for updated software at the Hewlett-Packard Web site.
Would you like Setup to check the web for updated software?
Yes (requires an active Internet connection)
No
< Back
Next >
Cancel

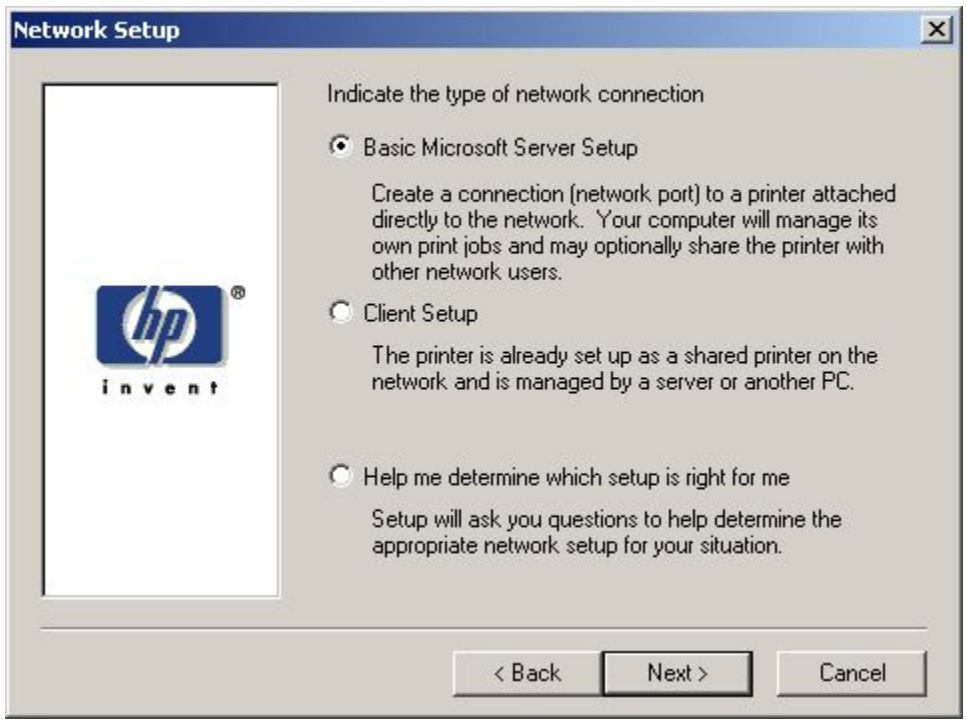
Figure 52: Web Update dialog box

Table 48: Web Update dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Web Update (Conditional)	Setup can look for updated software at the Hewlett-Packard Web site. Would you like Setup to check the Web for updated software? Yes (requires an active Internet connection) [option button] No [option button]	This is a conditional dialog box; that is, it appears only if the Setup program determines that an Internet connection might be available. If **No** is selected, **Next** takes you to the **Type of Connection** dialog box. This is the default option. If **Yes** is selected, clicking **Next** starts the Web Update. Details of the Internet installation are not covered in this document. Web Update requires Internet Explorer 4.0 or later. **Back** returns you to the **HP Software License Agreement** dialog box. **Cancel** takes you to the **Exit Setup** dialog box.


Type of Connection
Please select how your printer will be connected:
Connected to this computer
(e.g., parallel cable, USB cable or IR)
Connected to the network
(e.g., the printer is connected directly to the network or shared through another computer on the network)
invent
< Back
Next >
Cancel


Select Port
Select the port you want to use with this printer:
Parallel:
LPT1:
Express Install using HP recommended defaults
Other:
C:\Documents and Sett
invent
< Back
Next >
Cancel


Network Setup
Indicate the type of network connection
Basic Microsoft Server Setup
Create a connection (network port) to a printer attached directly to the network. Your computer will manage its own print jobs and may optionally share the printer with other network users.
Client Setup
The printer is already set up as a shared printer on the network and is managed by a server or another PC.
Help me determine which setup is right for me
Setup will ask you questions to help determine the appropriate network setup for your situation.
< Back
Next >
Cancel
invent

Network Printer Configuration
How do you want to identify the network printer you are installing?
Search from a list of available printers
Specify a printer by address
Description
Searches the local network for printers and allows you to choose your printer from a list of discovered printers.
Help
< Back
Next >
Cancel

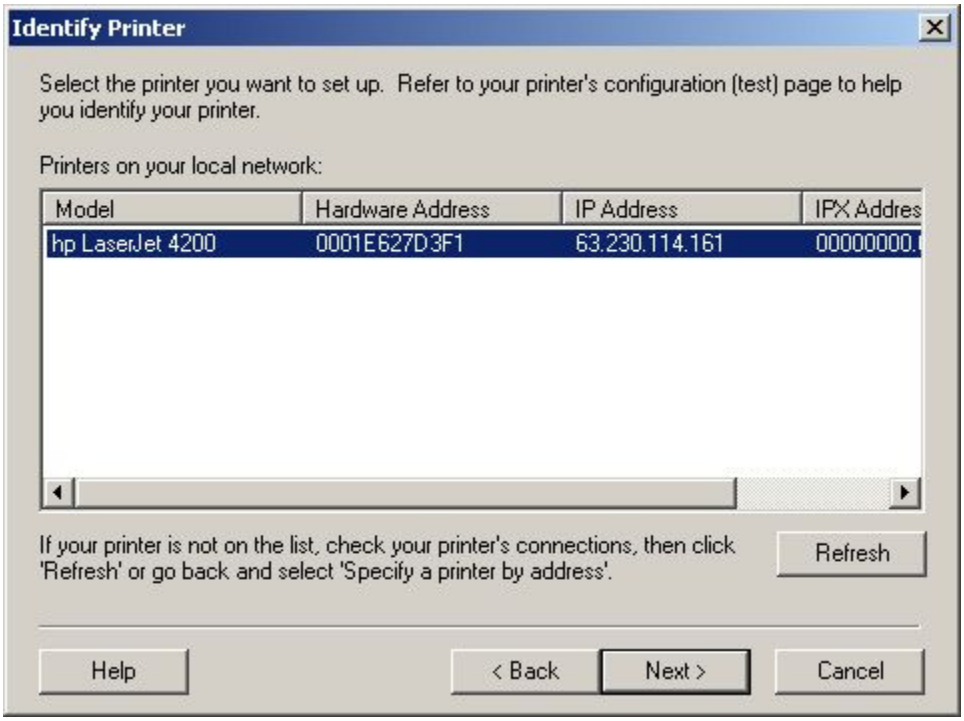

Identify Printer
Select the printer you want to set up. Refer to your printer's configuration (test) page to help you identify your printer.
Printers on your local network:
Model
Hardware Address
IP Address
IPX Addres
hp LaserJet 4200
0001E627D3F1
63.230.114.161
00000000.
If your printer is not on the list, check your printer's connections, then click 'Refresh' or go back and select 'Specify a printer by address'.
Refresh
Help
< Back
Next >
Cancel

Figure 57: Identify Printer dialog box (1 of 2)

Network Printer Configuration
How do you want to identify the network printer you are installing?
Search from a list of available printers
Specify a printer by address
invent
Description
Allows you to specify your printer by entering one of the following attributes: Hardware Address, IP Address, IP Hostname, or IPX Address.
Help
< Back
Next >
Cancel

Figure 58: Identify Printer dialog box (2 of 2)

Table 53: Identify Printer dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Identify Printer	Select the network printer you want to install. Printers on your local network: If your printer is not found on the list, click '**Refresh**', or go back and click **'Specify a printer by address'**. OR Specify the network printer you want to install. Specify by: Hardware Address. [option button] IP Address [option button} IP Hostname [option button] IPX Address [option button} Description	If you identify the printer by selecting from the list, and your HP LaserJet printer appears in the list and is selected, **Next** takes you to the **Set Network Communication Mode** dialog box. If your HP LaserJet 4200 or 4300 series printer is not found on the network, click **Refresh** or go back to the **Network Printer Configuration** dialog box to specify the device by address. **Refresh** updates the list of network printers. If you identify the printer by specifying a specific network address, **Next** takes you to the **Set Network Communication Mode** dialog box. **Back** returns you to the **Network Printer Configuration** dialog box. **Cancel** takes you to the **Exit Setup** dialog box.

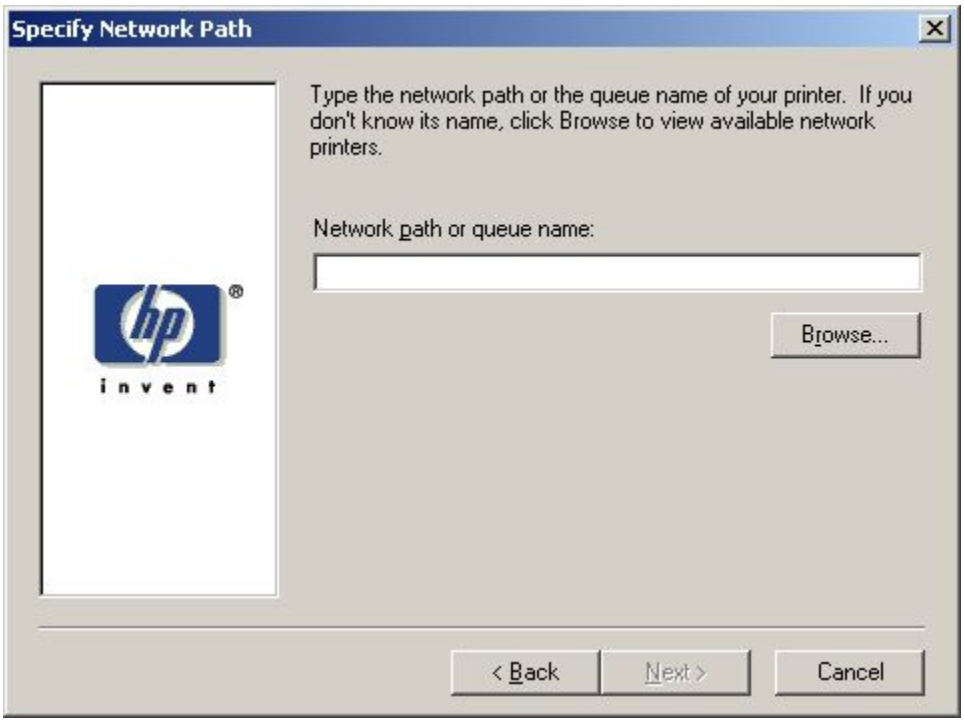
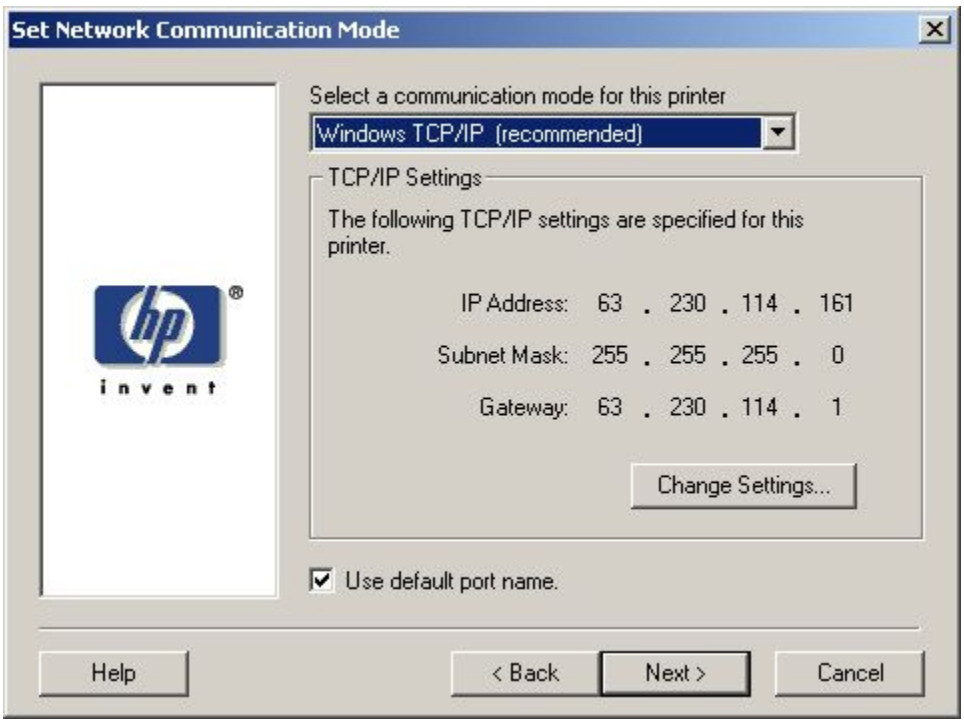

Specify Network Path
Type the network path or the queue name of your printer. If you don't know its name, click Browse to view available network printers.
Network path or queue name:
Browse...
invent
< Back
Next >
Cancel

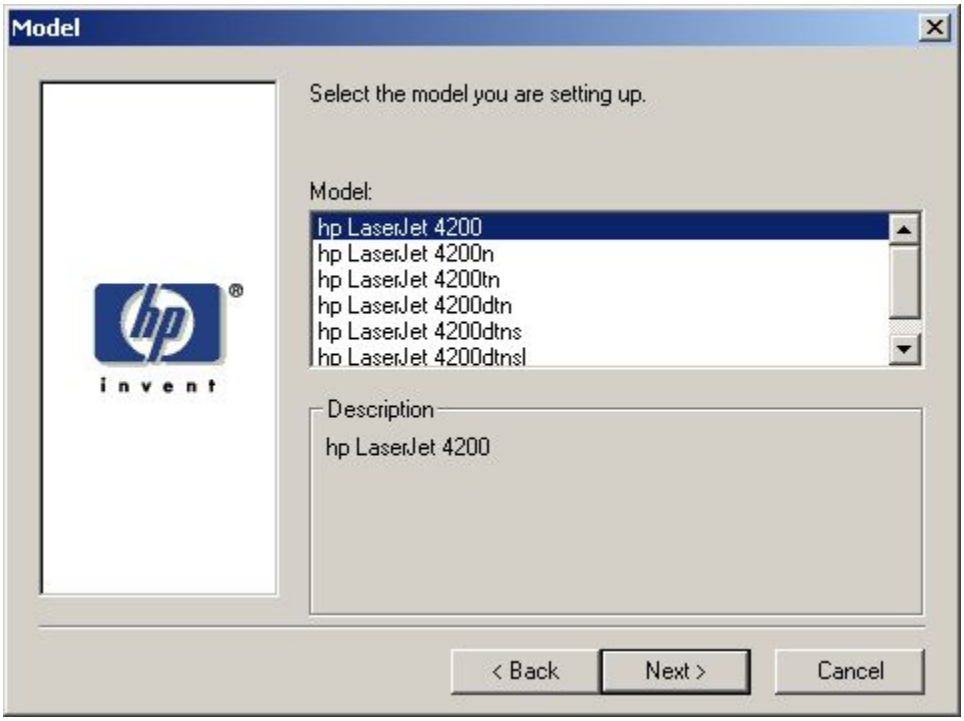
Figure 59: Specify Network Path dialog box

Table 54: Specify Network Path dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Specify Network Path	Type the network path or the queue name of your printer. If you do not know its name, click **Browse** to view the available network printers. Network path or queue name: Browse ...[button]	If you type a network path or queue name, **Next** takes you to the **Cable Type Selection** dialog box. **NOTE:** If you reached this dialog box from the **Connected to Selection** dialog box, **Next** takes you to the **Installation Type** dialog box. Click **Browse** to bring up a list of devices available on the network. **Back** returns you to the **Network Setup** dialog box. **Cancel** takes you to the **Exit Setup** dialog box.


Set Network Communication Mode
Select a communication mode for this printer
Windows TCP/IP (recommended)
TCP/IP Settings
The following TCP/IP settings are specified for this printer.
IP Address: 63 . 230 . 114 . 161
Subnet Mask: 255 . 255 . 255 . 0
Gateway: 63 . 230 . 114 . 1
Change Settings...
Use default port name.
Help
< Back
Next >
Cancel

Title of dialog box	Text in dialog box	User options and descriptions
		Back returns you to the **Identify Printer** dialog box. **Cancel** takes you to the **Exit Setup** dialog box.



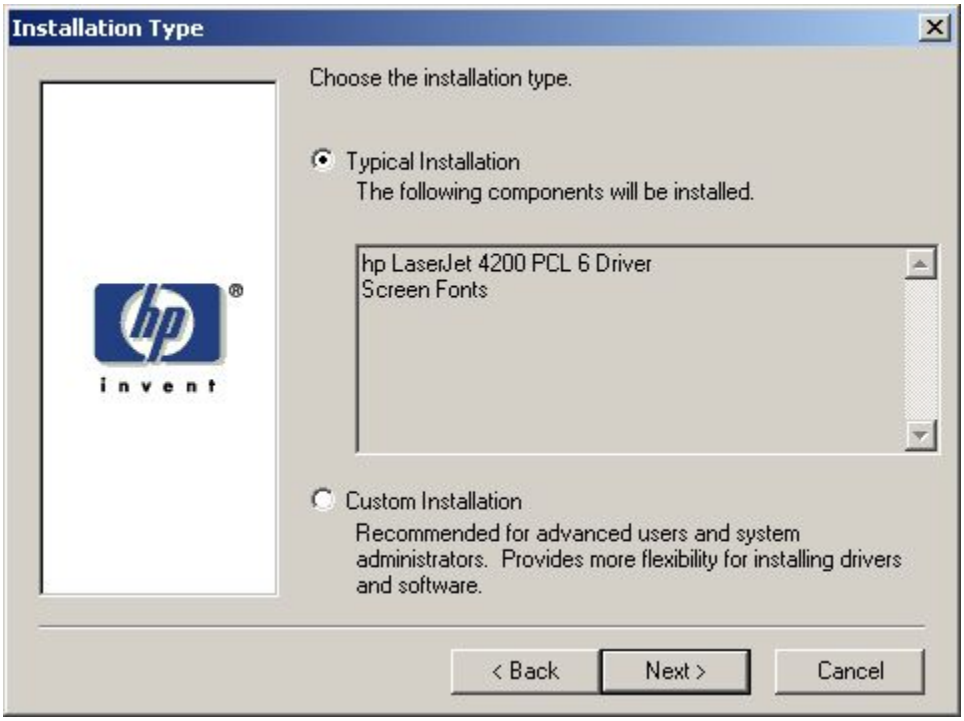
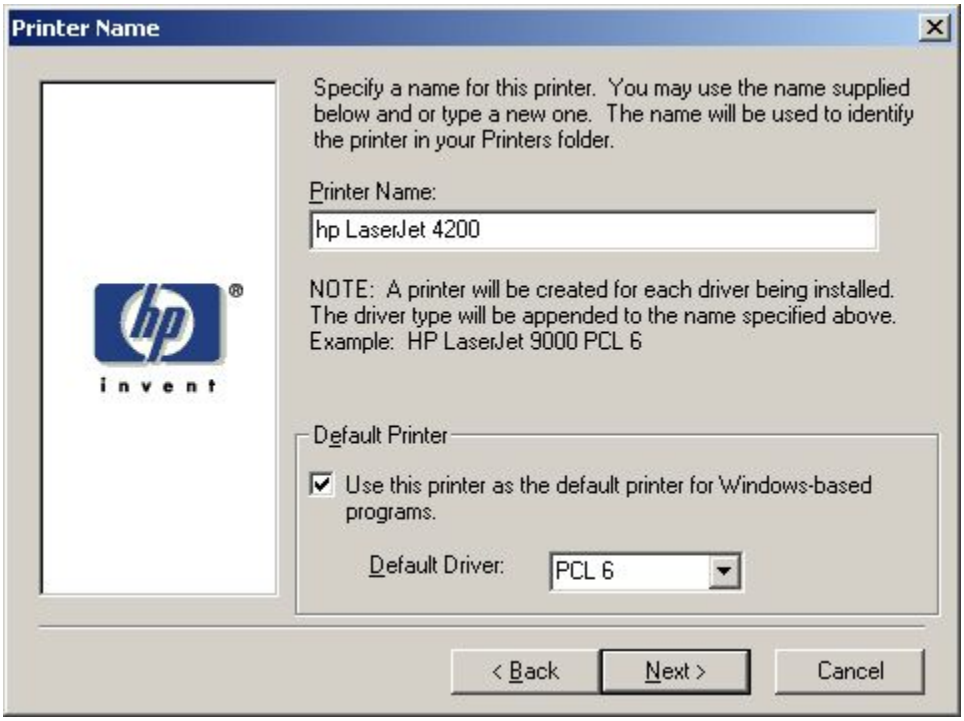

Installation Type
Choose the installation type.
Typical Installation
The following components will be installed.
hp LaserJet 4200 PCL 6 Driver
Screen Fonts
Custom Installation
Recommended for advanced users and system administrators. Provides more flexibility for installing drivers and software.
< Back
Next >
Cancel
invent

Figure 62: Installation Type dialog box

Note The components of a Typical Installation might vary from printer to printer.

Table 57: Installation Type dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Installation Type	Choose the installation type. Typical Installation Custom Installation Recommended for advanced users and system administrators. Provides more flexibility for installing drivers and software.	If **Typical Installation** is selected, **Next** takes you to the **Printer Name** dialog box. If **Custom Installation** is selected, **Next** takes you to the **Components** dialog box. **Back** returns you to the printer **Model** dialog box. **Cancel** takes you to the **Exit Setup** dialog box.


Printer Name
Specify a name for this printer. You may use the name supplied below and or type a new one. The name will be used to identify the printer in your Printers folder.
Printer Name:
hp LaserJet 4200
NOTE: A printer will be created for each driver being installed. The driver type will be appended to the name specified above. Example: HP LaserJet 9000 PCL 6
Default Printer
Use this printer as the default printer for Windows-based programs.
Default Driver:
PCL 6
< Back
Next >
Cancel

Printer Sharing
invent
Indicate whether this printer will be shared with other network users. If you choose sharing, give this printer a share name.
Not shared
Share as
NOTE: Exceeding 7 characters may make the printer inaccessible to Windows 95/98/Me clients. A share will be created for each driver type using the name specified above. Example: LJ 7900.
Client Driver Support
Additional drivers can be installed on this computer to support automatic driver download to clients.
Install a Windows 95/98/Me driver
Install a Windows NT 4.0 driver
< Back
Next >
Cancel

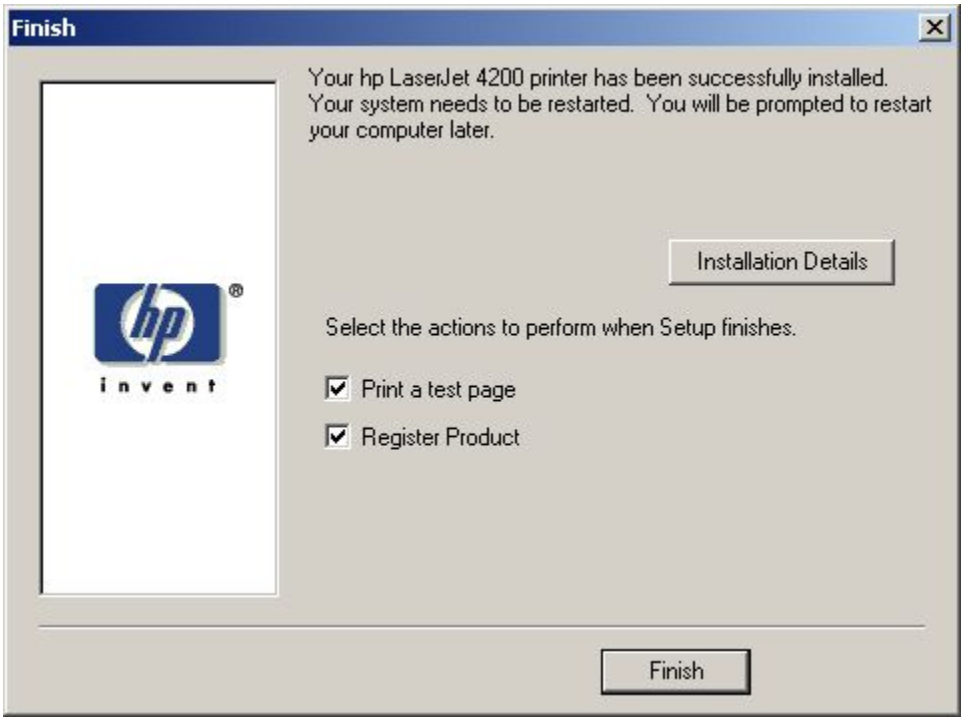

Finish
Your hp LaserJet 4200 printer has been successfully installed.
Your system needs to be restarted. You will be prompted to restart your computer later.
Installation Details
Select the actions to perform when Setup finishes.
Print a test page
Register Product
invent
Finish

Figure 65: Finish dialog box

Table 60: Finish dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Finish	Your HP LaserJet printer has been successfully installed. Installation Details Select the actions to perform when Setup finishes. Print a test page [check box] Web Registration [check box]	**Finish** completes the installation process and initiates test-page printing and Web-page registration if those options are selected. Click **Installation Details** to open a dialog box that shows installation details. **NOTE:** If the computer must be restarted, the Print a test page and Web Registration functions will occur after the computer is restarted.

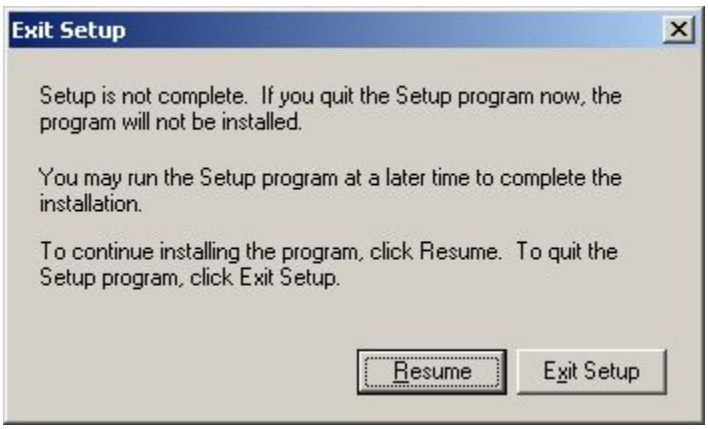

Exit Setup
Setup is not complete. If you quit the Setup program now, the program will not be installed.
You may run the Setup program at a later time to complete the installation.
To continue installing the program, click Resume. To quit the Setup program, click Exit Setup.
Resume
Exit Setup

Figure 66: Exit Setup dialog box

Table 61: Exit Setup dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Exit Setup	Setup is not complete. If you quit the Setup program now, the program will not be installed. You can run the Setup program at a later time to complete the installation. To continue installing the program, click **Resume**. To quit the Setup program, click **Exit Setup**.	**Exit Setup** closes the Installer program. **Resume** takes you to the dialog box you that most recently canceled.

Custom installation

The custom installation gives you the option of installing the following components:

- HP LaserJet 4200 or HP LaserJet 4300 PCL 6 driver (for direct-connect and network installations)
- HP LaserJet 4200 or HP LaserJet 4300 5e driver (for direct-connect and network installations)
- HP LaserJet 4200 or HP LaserJet 4300 PS driver (for direct-connect and network installations)
- Automatic Driver Configuration (for direct-connect [for Job Status only] and for network installations)
- Printer Status and Alerts (for direct-connect [for Job Status only] and for network installations)
- Screen fonts (for direct-connect and network installations)
- *HP LaserJet 4200 and 4300 User Guide* (for direct-connect and network installations)

Note The components of a Custom Installation might vary from printer to printer.

Note Windows NT 4.0, Windows 2000, and Windows XP computers running a terminal server do not support the Printer Status and Alerts option.

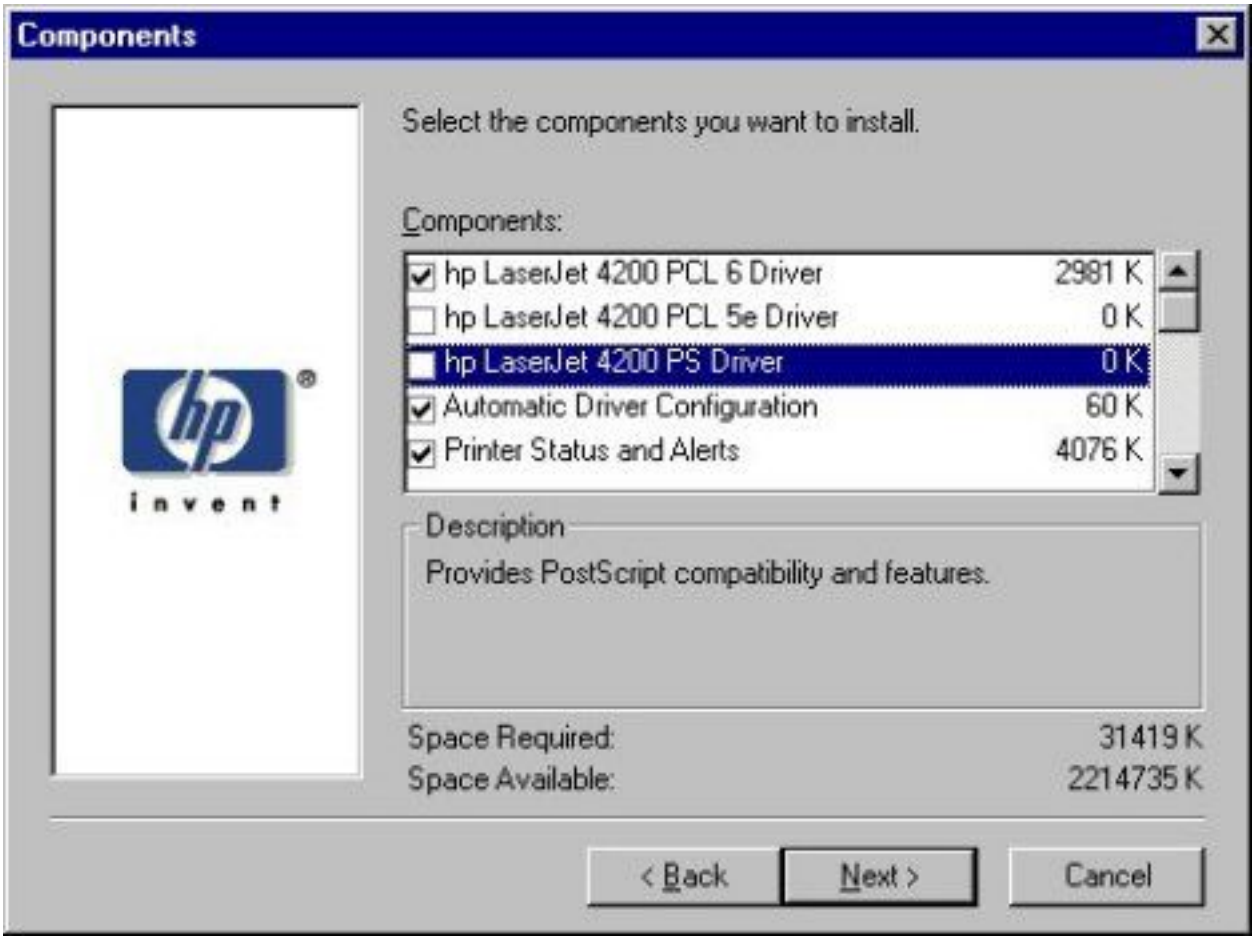

Components
Select the components you want to install.
Components:
hp LaserJet 4200 PCL 6 Driver 2981 K
hp LaserJet 4200 PCL 5e Driver 0 K
hp LaserJet 4200 PS Driver 0 K
Automatic Driver Configuration 60 K
Printer Status and Alerts 4076 K
Description
Provides PostScript compatibility and features.
Space Required: 31419 K
Space Available: 2214735 K
< Back
Next >
Cancel
invent

Figure 67: Components dialog box, Custom Installation

Note The appearance of this screen might vary, depending on printer and connection type.

Table 62: Custom Installation dialog box text strings

Title of dialog box	Text in dialog box	User options and descriptions
Components	Select the components you want to install. Components: Description Space Required Space Available	**Next** takes you to the **Printer Name** dialog box. **Back** returns you to the **Installation Type** dialog box. **Cancel** takes you to the **Exit Setup** dialog box. **NOTE:** Custom Installation automatically selects the options that are available in the Typical Installation. You can also select from among the following components: PCL 6 driver PCL 5e driver PostScript driver Automatic driver configuration Printer Status and Alerts

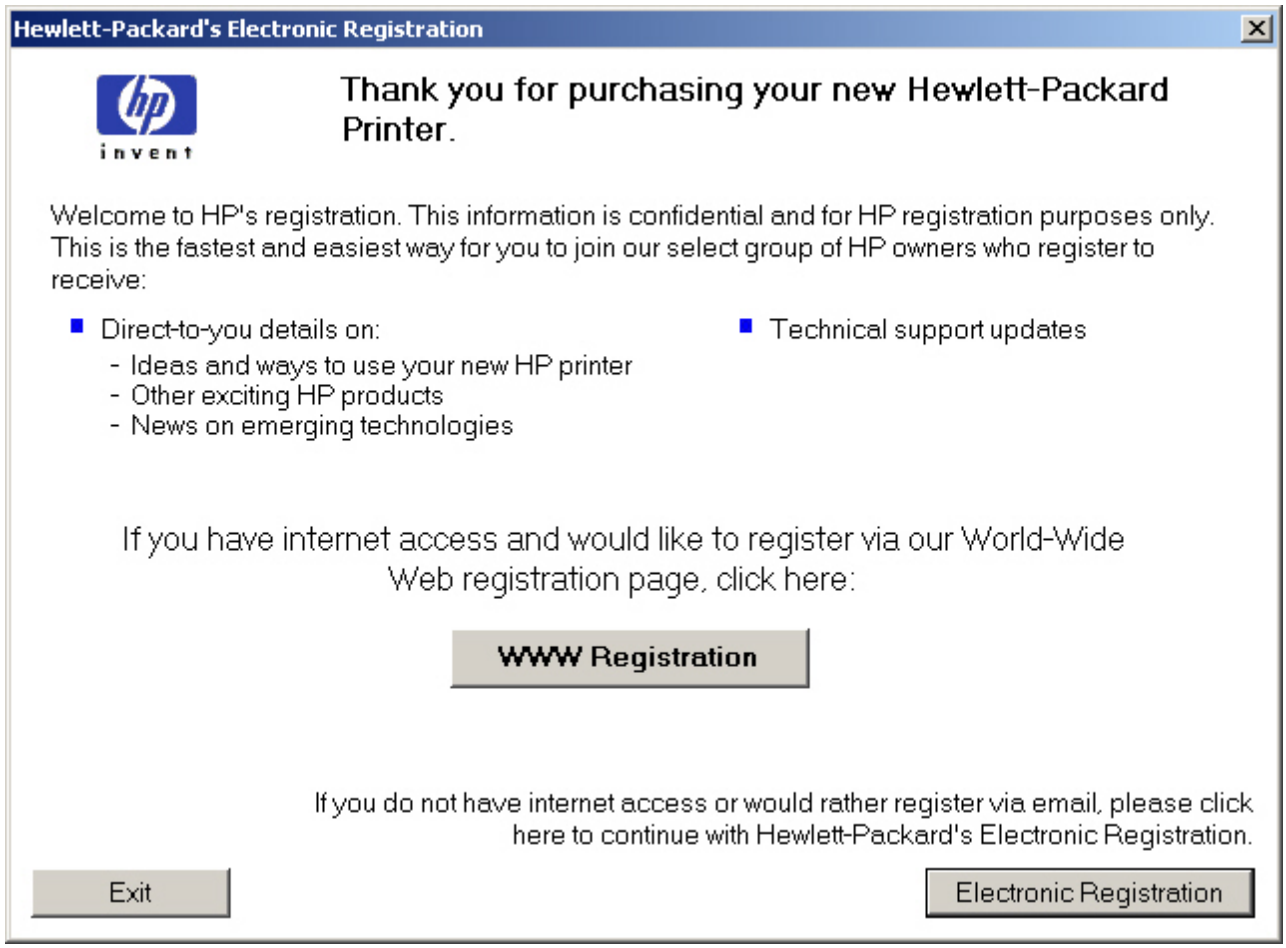
Product registration (HP WebReg)

The HP LaserJet software CD-ROM browser provides two options for registering the HP LaserJet 4200 and 4300 series printers:

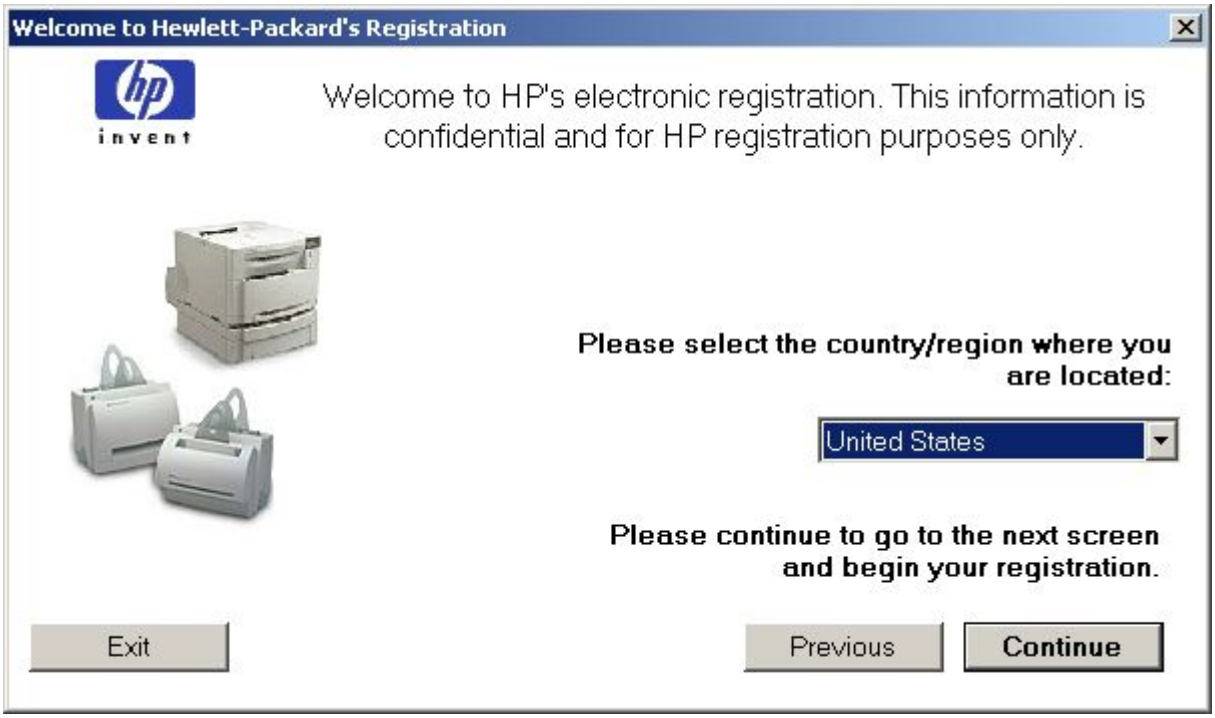
- registration through the Internet to the **http://register.hp.com** Web site
- registration by e-mail

Note Web registration for Hebrew and Arabic is in English.

To gain access to the product-registration options, go to the main menu of the HP LaserJet software CD-ROM browser and click **Register Product**. This starts the HP WebReg utility and opens the following window.


Hewlett-Packard's Electronic Registration
invent
Thank you for purchasing your new Hewlett-Packard Printer.
Welcome to HP's registration. This information is confidential and for HP registration purposes only. This is the fastest and easiest way for you to join our select group of HP owners who register to receive:
Direct-to-you details on:
- Ideas and ways to use your new HP printer
- Other exciting HP products
- News on emerging technologies
Technical support updates
If you have internet access and would like to register via our World-Wide Web registration page, click here:
WWW Registration
If you do not have internet access or would rather register via email, please click here to continue with Hewlett-Packard's Electronic Registration.
Exit
Electronic Registration

Title of dialog box	Text in dialog box	User options and descriptions
	• ideas and ways to use your new HP printer. • other exciting HP products. • news about emerging technologies. Technical support updates. If you have internet access and would like to register using our World Wide Web registration page, click here: WWW Registration[button] [default option] If you do not have internet access or would rather register using e-mail, please click here to continue with Hewlett-Packard's Electronic Registration. Electronic Registration [button] Exit[button]	Click the **Electronic Registration** button to open the **Welcome to Hewlett-Packard's Registration** dialog box. Click the **Exit** button to open the **Exiting Registration!** dialog box.


Welcome to Hewlett-Packard's Registration
invent
Welcome to HP's electronic registration. This information is confidential and for HP registration purposes only.
Please select the country/region where you are located:
United States
Please continue to go to the next screen and begin your registration.
Exit
Previous
Continue

Title of dialog box	Text in dialog box	User options and descriptions
	Please select the country/region where you are located. [drop-down menu] Please continue to go to the next screen and begin your registration Previous [button] Continue [button] Exit [button]	Click the **Continue** button to start a sequence of three screens. The first screen provides fields for typing your registration information. The second screen prompts you for information about your HP LaserJet 4200 or 4300 series printer. The third screen gives you the option of sending the e-mail message to register the printer. Click the **Exit** button to open the **Exiting Registration!** dialog box.

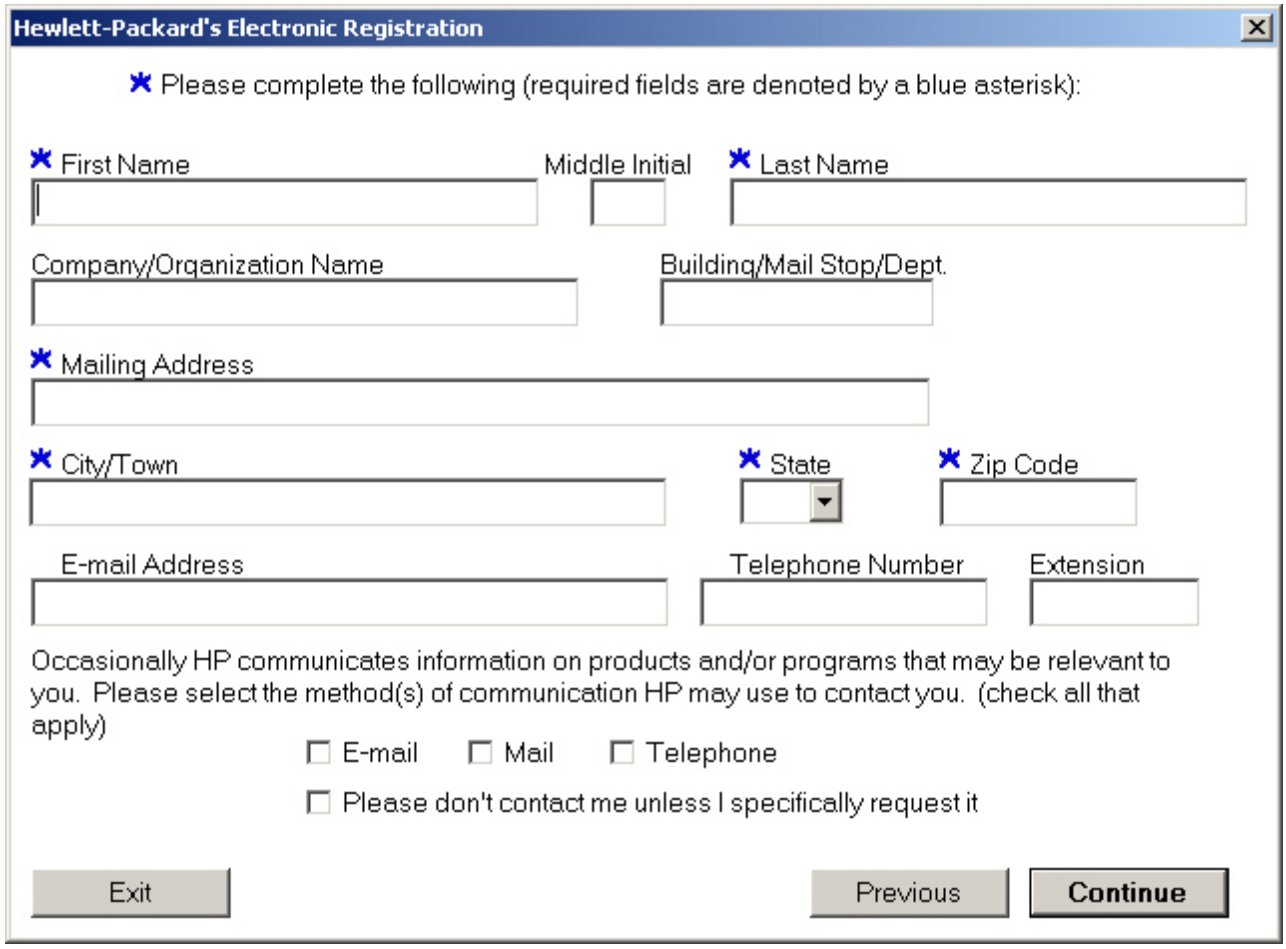
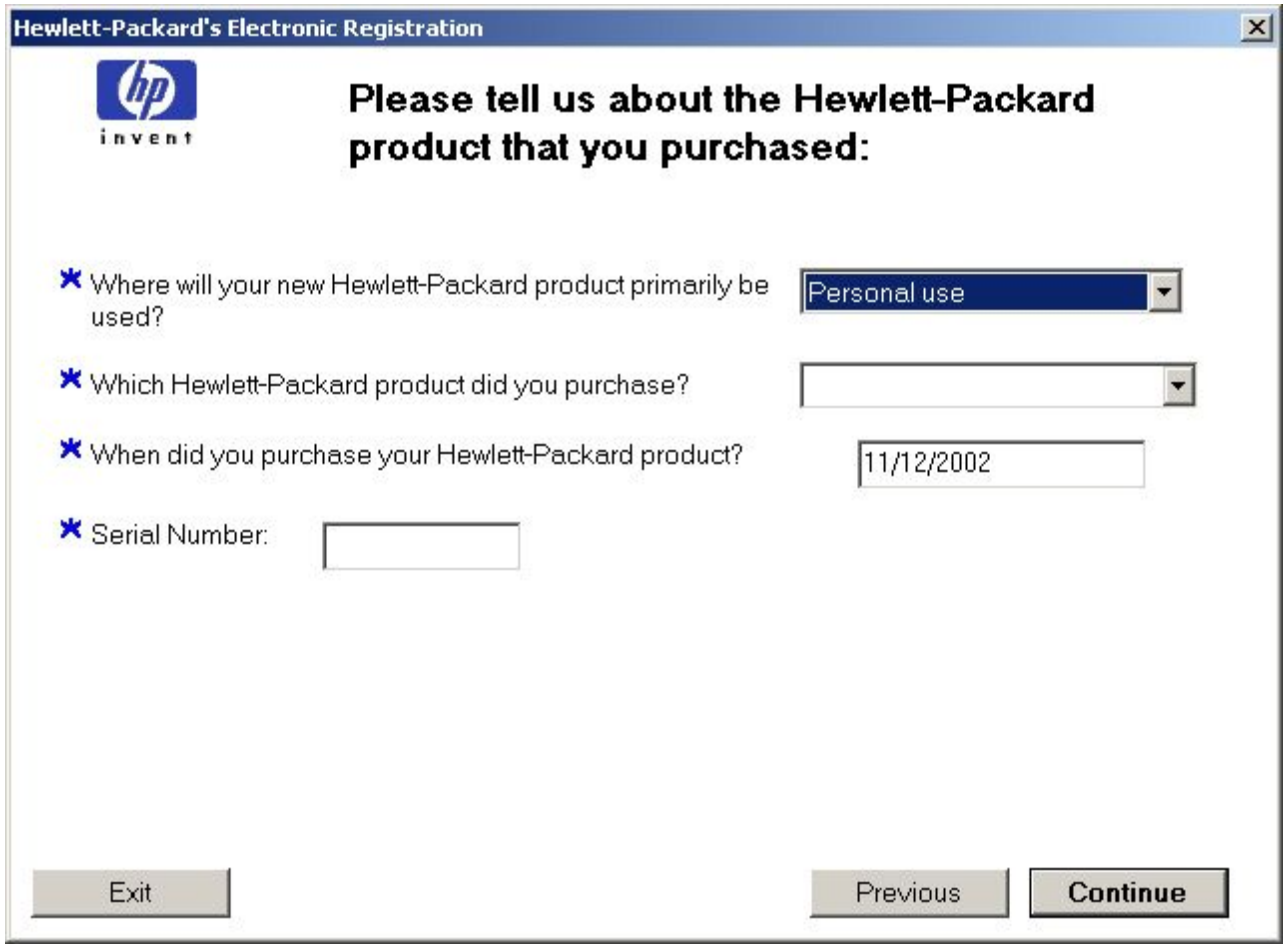

Hewlett-Packard's Electronic Registration
* Please complete the following (required fields are denoted by a blue asterisk):
* First Name
Middle Initial
* Last Name
Company/Organization Name
Building/Mail Stop/Dept.
* Mailing Address
* City/Town
* State
* Zip Code
E-mail Address
Telephone Number
Extension
Occasionally HP communicates information on products and/or programs that may be relevant to you. Please select the method(s) of communication HP may use to contact you. (check all that apply)
E-mail
Mail
Telephone
Please don't contact me unless I specifically request it
Exit
Previous
Continue

Figure 70: Hewlett-Packard's Electronic Registration dialog box (1 of 3)

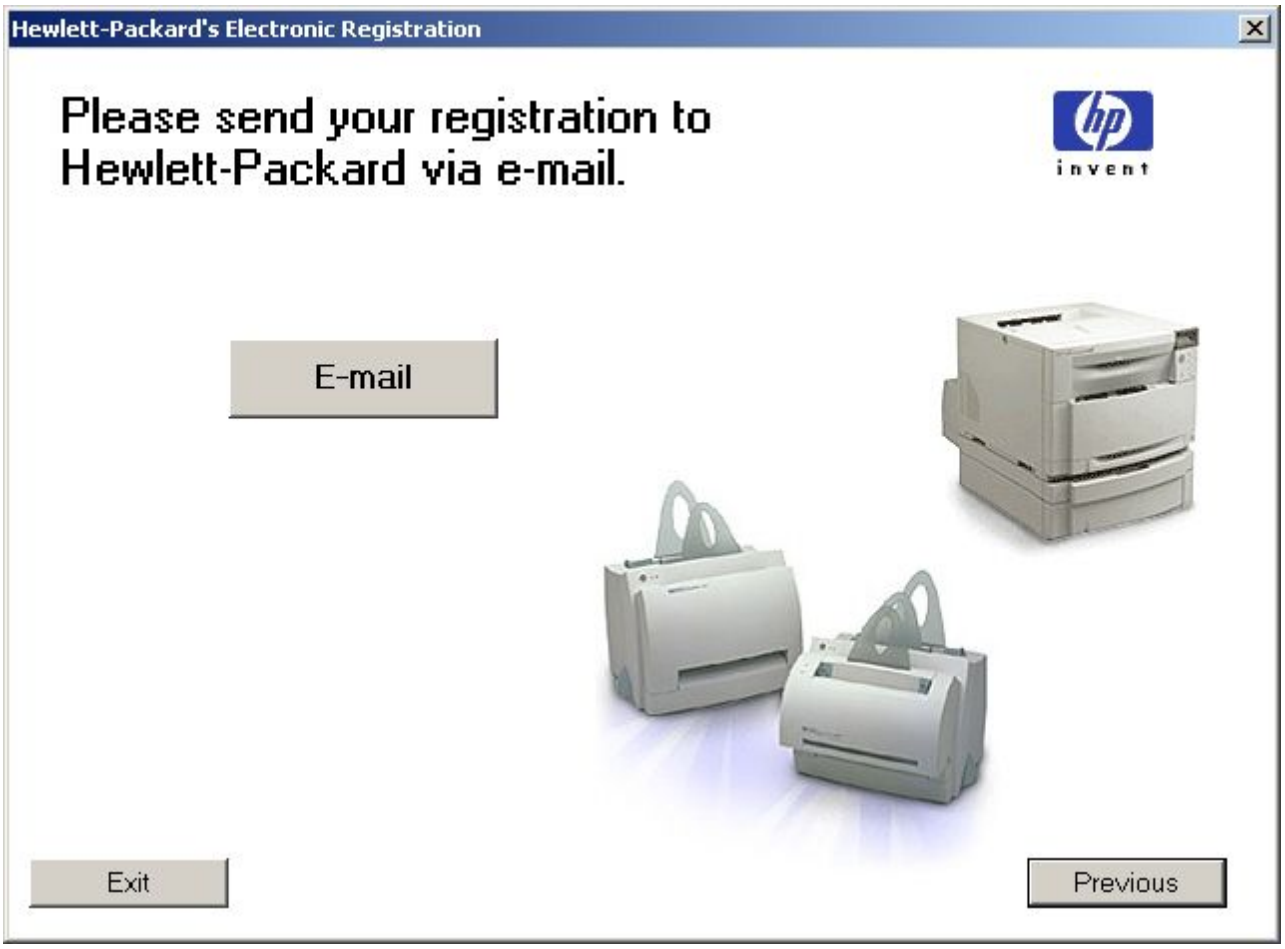
Table 65: Hewlett-Packard's Electronic Registration dialog box text strings (1 of 3)

Title of dialog box	Text in dialog box	User options and descriptions
Hewlett-Packard's Electronic Registration	Please complete the following (required fields are denoted by a blue asterisk): First name* Middle Initial	Click the **Previous** button to go back to the **Welcome to Hewlett-Packard's Registration** dialog box.

Title of dialog box	Text in dialog box	User options and descriptions
	Last Name* Company/Organization Name* Building/Mail Stop/Dept. Mailing Address* City/Town* State* [drop-down menu] Zip Code* E-mail Address Telephone Number Extension Occasionally HP communicates information about products and/or programs that might be relevant to you. Please select the method(s) HP can use to contact you. (check all that apply) E-mail [check box] Mail [check box] Telephone [check box] Please don't contact me unless I specifically request it [check box] Previous [button] Continue [button] Exit [button]	Click the **Continue** button to go to the second screen in this sequence. Click the **Exit** button to open the **Exiting Registration!** dialog box.


Hewlett-Packard's Electronic Registration
invent
Please tell us about the Hewlett-Packard product that you purchased:
* Where will your new Hewlett-Packard product primarily be used?
Personal use
* Which Hewlett-Packard product did you purchase?
* When did you purchase your Hewlett-Packard product?
11/12/2002
* Serial Number:
Exit
Previous
Continue

Title of dialog box	Text in dialog box	User options and descriptions
		The questions about the number of employees and your job responsibility appear only if you answered that you will use your Hewlett-Packard 4200 or 4300 series printer primarily for business or telecommuting. Drop-down boxes with possible answers are provided for your convenience. (Answering these questions is optional in the registration process.)



Title of dialog box	Text in dialog box	User options and descriptions
		Click the **Previous** button to go back to the second screen in this sequence. Click the **Exit** button to open the **Exiting Registration!** dialog box.

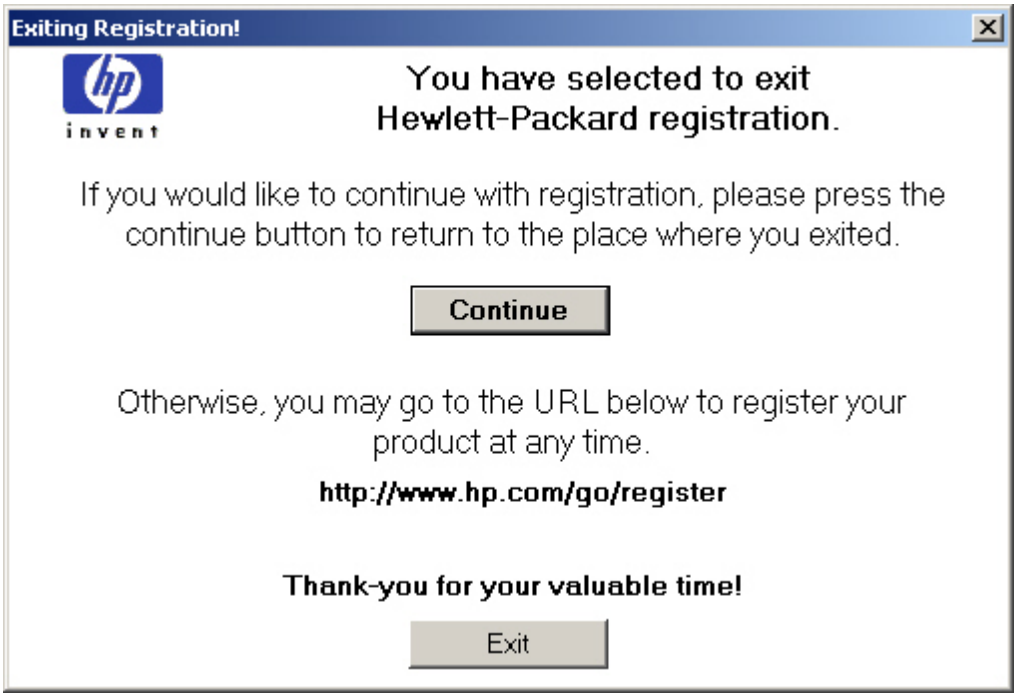

Exiting Registration!
invent
You have selected to exit
Hewlett-Packard registration.
If you would like to continue with registration, please press the continue button to return to the place where you exited.
Continue
Otherwise, you may go to the URL below to register your product at any time.
http://www.hp.com/go/register
Thank-you for your valuable time!
Exit

Figure 73: Exiting registration! dialog box

Table 68: Exiting registration text strings

Title of dialog box	Text in dialog box	User options and descriptions
Exiting Registration!	You have selected to exit Hewlett-Packard's registration. If you would like to continue with registration, please press the continue button to return to the place where you exited. Continue [button] [default option] Otherwise, you can go to the universal resource locator (URL) below to register your product at any time. **http://register.hp.com/go/register** Thank you for your valuable time! Exit [button]	Click the **Continue** button to go back to the screen where you were when you clicked the **Exit** button. Click the **Exit** button to close the WebReg utility.

Customization Utility for Windows

Use the **Customization Utility** button to create your own customized installation of printing-system components. To start the utility, click **Customization Utility** on the main menu of the HP LaserJet software CD-ROM browser. The following are available options for creating a customized installation.

- **Copy printer drivers only.** Using this option, you can copy the HP LaserJet Windows printer drivers to a selected form of media (disk, CD-ROM, network drive, and so on). You can use the resulting disk set with the Windows Add Printer Wizard. The Customization Utility prompts these choices:
  - operating system
  - printer model
  - printing system components (drivers to copy)
  - destination path
- **Create customized installer**. Using this option, you can create either an interactive or silent (unattended) installer customized by any of the following selections:
  - operating system
  - printer model
  - printing system components
  - interactive or silent (unattended) installer
- **Copy entire printing system installer**. Using this option, you can copy the HP LaserJet printing system installer to a selected form of high-capacity media such as a network drive. The customization utility prompts these choices:
  - language
  - operating system

Silent installer

You can use the HP LaserJet printing system software to create a silent installer that runs the SETUP.EXE program without user interaction. This installation method is useful when you want to use the default selections that the installer provides or when you want to run the installation without being prompted. You also have the option of creating a custom disk image that contains specific drivers and utilities, allowing users to run the installer without further interaction.

Silent installation can be performed in two ways:

- customized silent installer
- command-line silent installer

Customized silent installer

Use this option to select the printing-system components to include in the silent installation. You can select the operating system, language, printer models, drivers, utilities, and documentation to install.

Driver Management and Configuration Utility (Internal)

Driver Management and Configuration (DMC) is a software architecture and set of tools that permits HP and third-party software to be customized and distributed within managed corporate printing environments. It provides network administrators with the capability to preconfigure printer drivers and other printing software and manage that software on client workstations remotely. With DMC, customized printer settings can be retained during driver updates, rather than be replaced with the default settings of the new driver.

Command-line silent install

This method cannot be customized. It installs only the printing-system components that are included in the Typical Installation.

Note Values that follow equal signs (=) in a command line must not contain intervening spaces.

Method 1: Command line

Type the following at the command line (do not type the beginning and ending quotation marks):

"<CD-ROM-ROOT>/SETUP/SETUP.EXE /U /PORT=XXXX /PRINTER=N /PD=N"

Method 2: SETUP.LST

Use the SETUP.LST file to specify command-line arguments to the installer for an unattended installation. You can send command-line arguments in one of the following ways:

- Send the command directly to the installer.
- Send the command using the SETUP.LST file located in the setup directory.
- Use a combination of the two methods.

For example, this file contains two options: **/port** and **/printer**. The installer operates as normal because the **/u** option has not been specified. If you use **setup /u** for the installer, it operates in unattended mode and uses the two values specified in the defaults section of the SETUP.LST file. If you use **setup /u /printer=4** for the installer, it operates in unattended mode and chooses the HP LaserJet 4200 or HP LaserJet 4300 . The options specified on the command line override the options specified in the SETUP.LST file.

The options available can also include the **/u** option. Using this option key makes the installer always operate as unattended. The following descriptions explain the available options:

- **/u** signals the installer to use the specified port and printer given on the command line (or in this file), and to use all default selections. Installation then proceeds without prompting the user.
- **/port=xxxx** is used to specify the default port when performing an unattended installation. The value specified by xxxx should be a valid port and should contain no spaces; for example, **LPT1**
- **/printer=n** is used to specify the default printer when doing an unattended installation. The value specified by "n" is an integer that references the list of available printers. For example, the following printers are available for the HP LaserJet 4200 or HP LaserJet 4300 series printer installation:

0 = HP LaserJet 4200 or HP LaserJet 4300 printer

1 = HP LaserJet 4200 or HP LaserJet 4300n printer

2 = HP LaserJet 4200 or HP LaserJet 4300tn printer

3 = HP LaserJet 4200 or HP LaserJet 4300dtn printer

4 = HP LaserJet 4200 or HP LaserJet 4300dtns printer

5 = HP LaserJet 4200 or HP LaserJet 4300dtnsl printer

- **/pd=n** is used to specify whether the selected printer is the default printer, when you have multiple printers connected to your network. The value specified by n is an integer (that is, 0 or 1). For this argument, entering 1 (one) sets the selected printer as the default printer. Entering zero (0) or not specifying a value at all sets the printer as a non-default printer.

You can preset these options in the SETUP.LST file located in the root directory of the HP LaserJet software CD-ROM. In the defaults section, add the following syntax:

[Defaults]

Options= /port=<value> /printer=<number> /pd=<number>

For example, <value> = LPT1,

Driver-only installation

1. Close all software programs.
2. Click **Start**, click **Settings**, and then click **Printers**.

3. Double-click **Add Printer**.
4. Answer the questions in the **Add Printer Wizard** dialog box until you reach the screen with the printer manufacturer list.
5. Click **Have Disk**.
6. Browse to the driver location using one of these options: **Inbox CD-ROM**. Browse to the appropriate directory for your operating system and language. **Internet download**. Browse to the folder where the Web files were downloaded and decompressed.
7. Select the appropriate information (.INF) file.
8. Click **Open**, and then click **OK**.
9. Select the appropriate printer.
10. Follow the remaining instructions to complete the printer installation. At this point, the driver has been copied to your hard disk and is included with the list of installed printers.

Point and Print installation for Windows 95, 98, Me, NT 4.0, 2000, and XP

The following information will assist you as you install a printer driver using the Microsoft Point and Print function when you cannot see the printer on the network.

Point and Print is a Microsoft term that describes a two-step driver installation process. The first step is to install a shared driver on a network print server. The second step is to "point" to the print server from a network client so that the client can use the print driver.

Note

This section outlines the procedures for installing print drivers with Point and Print. If these procedures are not successful, contact Microsoft. Hewlett-Packard provides drivers that are compatible with the Point and Print feature, but this is a function of the Microsoft operating systems, not of HP print drivers. Windows NT, Windows 2000, and Windows XP drivers from HP are supported only on Intel X86 (R) processor types. Any other processor types must use Windows NT drivers from Microsoft.To install the printer driver on a Windows NT 4.0, Windows 2000, or Windows XP server, you must have administrator privileges. To completely install the Windows NT 4.0 printer driver on the Windows NT 4.0 server (or the Windows 2000 printer driver on the Windows 2000 server), you must have administrator privileges on the server. The Windows NT 4.0 Printer .INF file (or the Windows 2000 Printer .INF file) must contain the same printer name as the Windows 95, Windows 98, or Windows Me printer .INF file. Point and Print installation of a PS driver is supported only with a Microsoft Windows 95, Windows 98, or Windows Me PS driver version 4.0 or later.

For all operating systems, use the Add Printer Wizard to install the appropriate operating system driver on the server and client machines, as shown in the following table.

Table 69: Windows servers with Windows clients

Computer function	Steps
Server and clients	1. Click **Start**, click **Settings**, and then click **Printers**.
Server and clients	2. In the Printers folder, double-click the **Add Printer** icon to start the Add Printer Wizard.
Server only	3. Click **Next**, and then click **Local Printer**. Click **Next**. If your operating system is Windows 95, Windows 98, or Windows Me, go to step 6.
Server and clients	4. Select the appropriate port in the list of ports, or click **Add Port** to connect to a network port that is not in the list of available ports.
Server and clients	5. Select the printer model in the list of available printers, or click **Have Disk** if installing the driver from an alternative source, such as disk, CD-ROM, or software download. If installing from a software download, you must know the path where the software has been downloaded.
Server only	6. After the installation is complete, highlight the **Printer** icon and click **File**, and then click **Properties**. In the Printer Properties window, click the **Sharing** tab.
Server only	7. You must enable the File and Print Sharing service for either Microsoft networks or Novell networks on the server.
Server only	8. To exit Properties, click **OK**. A hand appears beneath the **Printer** icon in the Printers folder, indicating that the printer is shared.

Computer function	Steps

Client only	9. You can install the driver using Point and Print in one of the following four ways:
	• In Network Neighborhood, locate the server and double-click the printer share name.
	• In Network Neighborhood, locate the server, and then drag and drop the icon for the shared printer into your Printers folder.
	• In the Printers folder, open the Add Printer Wizard. The next action depends on the operating system:
	  • For Windows 95, Windows 98, and Windows Me, click **Network Printer**.
	  • For Windows NT 4.0, Windows 2000, and Windows XP, click **Network printer server**.

Client only	10. Click **Next.** Type the network path or queue name, or select **Browse** to search the network to locate the appropriate path.
Client only	11. In Network Neighborhood, locate the server and double-click. Then locate the printer share name and right-click.
Client only	12. Click **Install** to complete the installation through the Add Printer Wizard.

Setting a default printer

This section applies to the Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, and Windows XP operating systems.

1. From the **Start** menu, click **Settings**, and then click **Printers**.
2. Select the printer you want to set as the default printer.
3. From the **File** menu, click **Set As Default**. A check mark appears next to the menu option.
4. Click **Close**.

Windows 3.1x

Printer support

- The HP LaserJet 4200 series and HP LaserJet 4300 series printers have not been tested with and are not supported with Windows 3.1**x**.

5 Installation for Macintosh, IBM OS/2, and Linux operating systems

Introduction

This section provides system requirements and procedures for installing and removing the HP LaserJet printing system software for supported operating system other than Windows. It also provides information about font support and system modifications. Supported operating systems include:

- Macintosh
- IBM OS/2
- Linux

System Requirements

The following system requirements are for installing and using the HP LaserJet printing system software on each of these supported operating systems.

Macintosh

- 68-kilobyte processor
- Macintosh OS 8.6 or later
- 16 MB RAM
- 20 MB available disk space

IBM OS/2

- Pentium processor
- 32 MB RAM (required for OS/2)
- 5 MB available disk space (required for driver)

Linux

For information about Linux support for the printer, see the following Web sites:

- **http://hp.sourceforge.net** (HP Linux support home page)
- **http://www.hp.com/go/linux** (Hewlett-Packard's Linux Web site)

Macintosh

Macintosh component descriptions

The printer includes the following software for Macintosh computers.

PPDs (Mac OS 8.6 to 9.*x*, Mac OS X classic, and Mac OS X)

HP LaserJet PPDs

In Mac OS 8.6 to 9.*x*, these PS printer-definition files for HP LaserJet 4200 and 4300 series printers are installed to the Printer Descriptions folder, which is in the Extensions folder within the System folder. In Mac OS X, the PPDs are installed in

Library:Printers:PPDs:Contents:Resources:<lang>.lproj

where <lang> is the desired localized folder.

PPDs, in combination with the LaserWriter driver, provide access to the printer features and allow the computer to communicate with the printer. An installation program for the PPDs is provided on the printing software CD-ROM.

For Mac OS 8.6 to 9.*x*, the Apple LaserWriter 8 driver must be installed to use the PPD file. Use the Apple LaserWriter 8 driver that came with your Macintosh. For Mac OS X, use Print Center to print.

PDEs (Mac OS X)

Printer Dialog Extensions (PDEs) are code plug-ins that provide access to printer features, such as number of copies, duplexing, and quality settings. An installation program for the PDEs and other software is provided on the printing software CD-ROM.

HP LaserJet Utility

This Hewlett-Packard printer utility is installed to the HP LaserJet folder in Macintosh OS 8.6 to 9.1 operating systems. It provides configuration and management support for PS and PCL printers.

Use the HP LaserJet Utility to control features that are not available in the driver. The illustrated screens make selecting printer features from the Macintosh computer easier than ever. Use the HP LaserJet Utility to do the following:

- customize the printer's control panel messages.
- name the printer, assign it to a zone on the network, download files and fonts, and change most of the printer settings.
- set a password for the printer.
- from the computer, lock out functions on the printer's control panel to prevent unauthorized access. (See the printer software help.)

Installation notes

This text file contains important information about printer features, instructions for installing the printing-system software, and technical assistance.

ColorSync profiles

These text files contain color-matching information for the Macintosh system and HP LaserJet color printers.

Online Help

This HTML-based help system replaces the Apple Guide help system that was provided with earlier HP printers. The help system can be viewed through a browser or in the Macintosh OS Help Center.

Screen fonts (Mac OS classic)

These screen fonts are available only for Macintosh computers and Macintosh-compatible computers. Because the screen fonts match your printer fonts, you can see on screen how your printed page will look.

Font support

To ensure that you can use all installed fonts with the HP LaserJet 4200 and 4300 series printers, the Macintosh printing system includes the standard 35 screen fonts in 11 families:

- Avant Garde
- Helvetica Narrow
- Times
- Bookman
- New Century Schoolbook
- Zapf Chancery
- Courier
- Palatino
- Zapf Dingbats
- Helvetica
- Symbol

The Macintosh printing system also includes the HP 45 XPS font families:

- Clarendon Condensed Bold
- Symbol
- Albertus Medium
- Coronet
- Times New Roman
- Antique Olive
- Courier
- Univers
- Arial
- Garamond
- Univers Condensed
- CG Omega
- Letter Gothic
- Wingdings
- CG Times
- Marigold

The following bitmap screen fonts reside on the HP LaserJet 4200 and 4300 series printers:

- ITC Avant Garde Gothic Book
- Helvetica
- Palatino

- ITC Avant Garde Gothic Book Oblique
- Helvetica Bold
- Palatino Bold
- ITC Avant Garde Gothic Demi
- Helvetica Bold Oblique
- Palatino Bold Italic
- ITC Avant Garde Gothic Demi Oblique
- Helvetica Oblique
- Palatino Italic
- ITC Bookman Demi
- Helvetica Narrow
- Symbol
- ITC Bookman Demi Italic
- Helvetica Narrow Bold
- Times Bold
- ITC Bookman Light
- Helvetica Narrow Bold Oblique
- Times Bold Italic
- ITC Bookman Light Italic
- Helvetica Narrow Oblique
- Times Italic
- Courier
- New Century Schoolbook Bold
- Times Roman
- Courier Bold
- New Century Schoolbook Bold Italic
- ITC Zapf Chancery Medium Italic
- Courier Bold Oblique
- New Century Schoolbook Italic
- ITC Zapf Dingbats
- Courier Oblique
- New Century Schoolbook Roman

The following fonts are resident on all HP LaserJet 4200 and 4300 series printers, but can be used by Macintosh platforms only if you install additional screen fonts. You can either use these screen fonts directly from the HP LaserJet 4200 and 4300 software CD-ROMs, or obtain them from the HP Web site at one of the following URLs: http://www.hp.com/support/lj4200 or http://www.hp.com/support/lj4300

- Albertus Extra Bold
- CG Times Italic
- Marigold
- Albertus Medium

- Clarendon Condensed Bold
- Symbol
- Antique Olive
- Coronet
- Times New Roman
- Antique Olive Bold
- Courier
- Times New Roman Bold
- Antique Olive Italic
- Courier Bold
- Times New Roman Bold Italic
- Arial Courier Bold Oblique
- Times New Roman Italic
- Arial Bold
- Courier Italic
- Univers Bold
- Arial Bold Italic
- Garamond Antiqua
- Univers Bold Italic
- Arial Italic
- Garamond Halbfett
- Univers Condensed Bold Italic
- CG Omega
- Garamond Kursiv
- Univers Condensed Medium
- CG Omega Bold
- Garamond Kursiv Halbfett
- Univers Condensed Medium Italic
- CG Omega Bold Italic
- Letter Gothic
- Univers Medium
- CG Omega Italic
- Letter Gothic Bold
- Univers Medium Italic
- CG Times
- Letter Gothic Italic
- Univers Italic
- CG Times Bold
- CG Times Bold Italic

- Wingdings
- CG Times Bold Italic

Installing the Macintosh printing system

4. Select the USB printer in the printer selection window, and then click **OK**.
5. Click **Auto Setup** to attempt to match a PPD file and USB driver to your printer. If **Auto Setup** fails, click **Change**. Scroll through the list of printers, select **HP LaserJet 4200** or **HP LaserJet 4300**, and then click **Select**.
6. Click **Create**.

To set up an AppleTalk networked printer with Mac OS 8.6 - 9.1

1. Run the Apple Desktop Printer Utility.
2. Select **Printer (AppleTalk)**, and then click **OK**.
3. Click **Change** in the AppleTalk Printer Selection area.
4. Select the appropriate zone and printer, and then click **OK**.
5. Click **Auto Setup** to attempt to match a PPD file and USB driver to your printer. If **Auto Setup** fails, click **Change**. Scroll through the list of printers, select **HP LaserJet 4200** or **HP LaserJet 4300**, and then click **Select**.
6. Click **Create**.

To set up a printer with Mac OS X

1. In the **Applications** folder, open the **Utilities** folder, and then run the **Print Center**.
2. Click **Add** (in Mac OS X 10.2) or **Add Printer** (in Mac OS X 10.1).
3. From the top pop-up menu, select the appropriate connection type for your printer.
4. Select or type in any other information as indicated for the type of connection for your printer. For example, if you are using an AppleTalk connection, select your printer zone; or if you are using IP Printing, type in an IP address.

Note If the automatic selection fails, or if you want to manually select a PPD file, click the Printer Model pop-up menu, select HP, and then click LaserJet 4200 or LaserJet 4300.

5. Click **Add**.
6. To configure installable options in Mac OS X 10.2, such as a duplexing unit or optional paper trays, click the appropriate printer icon in the **Print Center Printer List**.window. Select **Show Info** from the **Printers** menu, and then select the appropriate options from the **Installable Options** popup menu.
7. Configure the options, and then click **Apply Changes**.

Uninstalling the Macintosh printing system

To uninstall the Macintosh Printing System, drag the PPDs and the unwanted component(s) to **Trash**.

In-box disk layout

The Macintosh Printing System consists of one file: the HP LaserJet Installer - Integrated installer program.

Macintosh (Macintosh OS Classic) installation

This section provides information about the various installation dialog box sequences for the Macintosh operating system.

Main Install dialog box sequence

This subsection provides information about the Macintosh installation dialog box sequence for the Easy Install (the typical installation option).

hp LaserJet Installer
Easy Install
Read Me...
Click the Install button to install
• Printer Descriptions (Classic)
• hp LaserJet Utility (Classic)
• Installation Notes (Classic)
• hp LaserJet Help (Classic)
Disk space available: 408,080K
Approximate disk space needed: 14,664K
Install Location
Items will be installed on the disk "Cloud 9"
Install Location:
Cloud 9
Quit
Install

hp LaserJet Installer
Custom Install
Read Me...
Printer Descriptions (Classic)
hp LaserJet Utility (Classic)
Installation Notes (Classic)
hp LaserJet Help (Classic)
USB Components (Classic)
hp Manual Duplex&Booklet (Classic)
Disk space available: 408,080K
Approximate disk space needed: 0K
Install Location
Items will be installed on the disk "Cloud 9"
Install Location:
Cloud 9
Quit
Install

Installing
Items remaining to be installed: 286
Installing: HP LaserJet XXXX Series
Stop
This installation was created with Installer VISE from MindVision Software

Printer setup using AppleTalk Chooser

This section provides information about installing the printer using the AppleTalk Chooser.

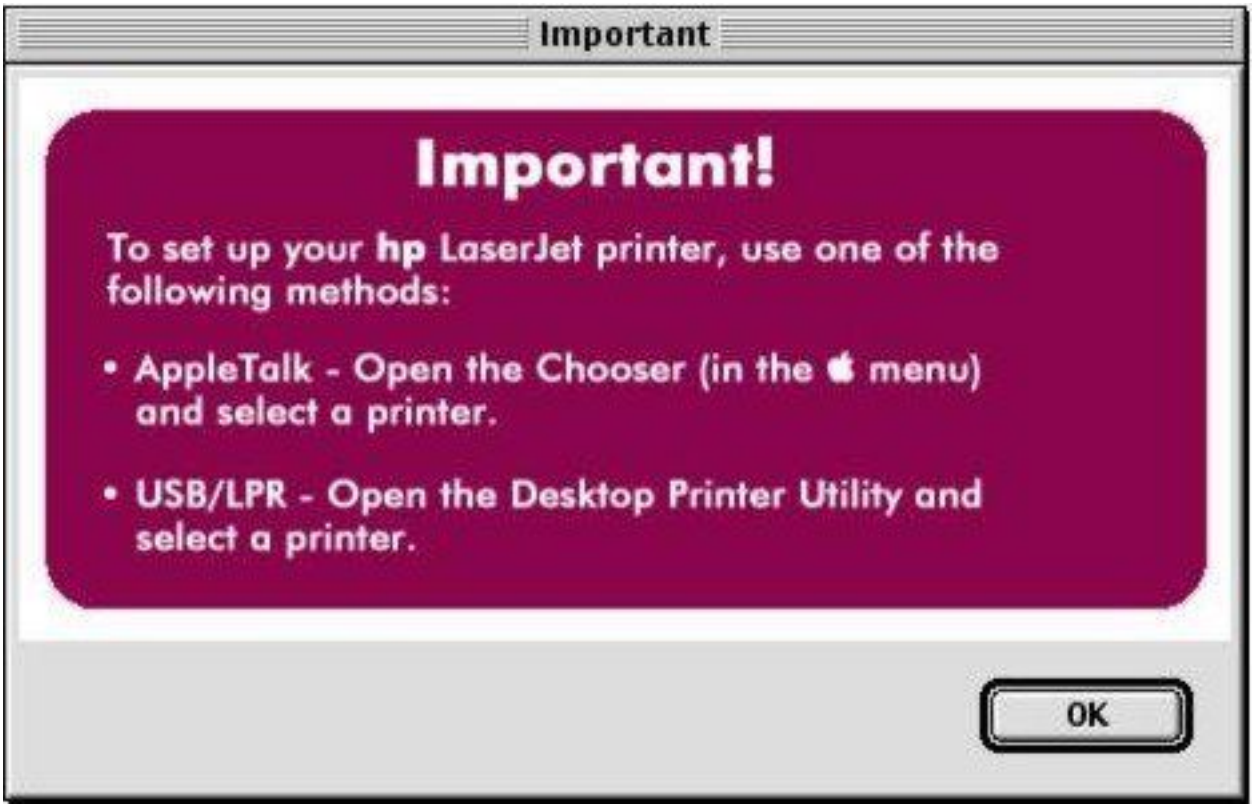

Important
Important!
To set up your hp LaserJet printer, use one of the following methods:
• AppleTalk - Open the Chooser (in the menu) and select a printer.
• USB/LPR - Open the Desktop Printer Utility and select a printer.
OK

Figure 79: Important! dialog box

Table 75: Important! dialog box text strings

Title of dialog box	Text in dialog box	User Options and Descriptions
Important!	To set up your HP LaserJet printer, use one of the following methods: AppleTalk - Open the Chooser (in the [Apple icon] menu) and select a printer. USB/LPR - Open the Desktop Printer Utility and select a printer.	Click **OK**, and then continue installing the printer using either the AppleTalk Chooser, or USB/LPR.

How do I select my printer?
Before you can use a printer with your computer, you must set it up on your system using the Chooser.
For instructions, click the right arrow.
Topics
Huh?
1

Table 76: How do I select my printer? dialog text strings

Title of dialog box	Text in dialog box	User Options and Descriptions
How do I select my printer?	For instructions, click the right arrow. Topics [button]	This is a standard Macintosh OS help sequence.

HP LaserJet Screen Fonts Installer dialog box sequence

This section provides information about the installation dialog box sequence for the HP Screen Font Installer.

HP LaserJet Screen Fonts
Click the Install button to install
• Screen fonts
Install Location
Quit
Install

Table 80: Installation was successful dialog text strings

Title of dialog box	Text in dialog box	User Options and Descriptions
	Installation was successful. If you are finished, click **Quit** to leave the Installer. If you want to perform additional installations, click Continue.	Click the **Quit** button to exit the Installer. Click the **Continue** button to return to the HP LaserJet Screen Fonts installer.

Macintosh (Macintosh OS X) installation

hp LaserJet Installer
Easy Install
Read Me...
Click the Install button to install
• Printer Dialog Extensions (OS X)
• Printer Descriptions (OS X)
• Printer Descriptions (Classic)
• hp LaserJet Utility (Classic)
• Installation Notes (Classic)
• More...
Disk space available : > 4GB
Approximate disk space needed : 20,680K
Install Location
Items will be installed on the disk "Mac"
Install Location :
Mac
Quit
Install

hp LaserJet Installer
Custom Install
Read Me...
Printer Dialog Extensions (OS X)
Printer Descriptions (OS X)
Printer Descriptions (Classic)
hp LaserJet Utility (Classic)
Installation Notes (Classic)
hp LaserJet Help (Classic)
Disk space available : > 4GB
Approximate disk space needed : OK
Install Location
Items will be installed on the disk "Mac"
Install Location :
Mac
Quit
Install

Installing
Items remaining to be installed: 286
Installing: HP LaserJet XXXX Series
Stop
This installation was created with Installer VISE from MindVision Software

Note Use this procedure if the OS/2 desktop does not have a printer object. A system can have this configuration if no printer was selected during OS/2 installation, or if all the print objects have been deleted from the desktop.

1. Open the templates folder that is located in OS/2 system folder after OS/2 installation.
2. Click the **Printer** template. Press and hold the right mouse button.
3. Drag the template to Desktop.
4. Release the right mouse button.
5. Type a name for the printer in the **Name** field.
6. Select a port to which the printer is connected.
7. Click **Install new printer driver**. A window appears with a list of the printer drivers that are shipped with OS/2.
8. Click **Other printer driver**.
9. Point to the downloaded printer drivers.
10. Click **Refresh**. Wait until the window fills with printer drivers.
11. Select a driver by clicking the left mouse button over the driver that you want.
12. Click **Install**.

Installing a printer in OS/2 with pre-existing printer object on desktop

To install a new printer driver using an existing printer object, use the following procedure:

Note If the 16-bit HP LaserJet driver is installed on a system, delete it before installing this driver.

Use these directions if a printer object exists on the OS/2 desktop, but you do not have the correct printer driver installed on the system. This could happen if a different printer has been added to the system.

1. Right-click the **Printer** object.
2. Click **Settings**.
3. Click the **Printer Driver** tab.
4. Right-click one of the **Printer Driver** objects.
5. Click **Install**.
6. Click **Other OS/2 printer driver**.
7. Point to the downloaded printer drivers.
8. Click the **Refresh** button. Wait until the window fills with printer drivers.
9. Click the driver that you want to use.
10. Click **Install**.

Additional information about the OS/2 drivers is included in the readme files that come with each driver.

Font support

- Times New Roman
- Antique Olive · Coronet
- Times New Roman Bold
- Antique Olive Bold
- Courier
- Times New Roman Bold Italic
- Antique Olive Italic
- Courier Bold
- Times New Roman Italic
- Arial
- Courier Bold Italic
- Univers
- Arial Bold
- Courier Italic
- Univers Bold
- Arial Bold Italic
- Garamond Antiqua
- Univers Bold Italic
- Arial Italic
- Garamond Halbfett
- Univers Italic
- CG Omega
- Garamond Kursiv
- Univers Condensed
- CG Omega Bold
- Garamond Kursiv Halbfett
- Univers Condensed Bold
- CG Omega Bold Italic
- Letter
- Univers Condensed Bold Italic
- CG Omega Italic
- Letter Bold
- Univers Condensed Medium Italic
- CG Times
- Letter Italic
- Wingdings
- CG Times Bold
- Line Printer
- CG Times Bold Italic

- Marigold

Changing a printer driver in the printer object

Once both the printer object and the printer driver have been installed, the correct printer driver should be selected in the print object. This might also be necessary if you are using different printer drivers with a single print object. To change to a different printer driver:

1. Right-click the **Printer** object.
2. Click **Settings**.
3. Click the **Printer Driver** tab.
4. Double-click the **Titlebar** icon.

The printer object is now set up to use a different printer driver. To customize the settings for this printer driver, see "Changing the printer properties" or "Changing the job properties."

Changing the printer properties

Printer properties describe how a particular printer is physically set up. Examples of printer properties include the amount of memory in a printer, forms defined by the printer, forms associated with the printer paper trays, and installed printer patterns.

To set or change printer properties:

1. Point to the Printer object. Right-click the **Printer** object.
2. Click **Settings**.
3. Click the **Printer Driver** tab.
4. Right-click the correct printer driver.
5. Click **Settings**.
6. Change the properties to match the printer setup.
7. Double-click the **Titlebar** icon.

The printer object is now set up to print a job. For information about how to print a job, see the OS/2 tutorial or the information folder for information about printing.

Changing the job properties

Job properties describe how a particular print job is printed. Examples of job properties include number of copies, print resolution, print quality, and orientation (portrait or landscape). Programs generally allow the selection of a printer object, and they allow you to change the job properties associated with a particular job by selecting setup or options buttons. Under certain conditions, it is appropriate to change job properties outside of a software program, such as when performing drag-and-drop printing.

To change the default job properties associated with a printer object outside of an program:

1. Right-click the **Printer** object.
2. Click **Settings**.
3. Click the **Job Properties** tab.
4. Change the properties.
5. Click **Save**.

The default job properties associated with a printer object are now set up. For more information about how to print a job, see the OS/2 tutorial or the information folder.

6 Engineering Detail

LaserJet 4200 PCL 6 driver for Windows XP will be automatically set to "Landscape". Continuous export functions transparently from the user's perspective and will only work between drivers with identical model names.

Note Not all driver parameters can be exported; however the list will always be the same as those that can be pre-configured.

The following table shows drivers and operating systems that support DMC.

Table 86: Operating systems that support Driver Management and Configuration

Driver	Windows 95	Windows 98	Windows Me	Windows NT 4.0	Windows 2000	Windows XP
Wizard PCL 5c	Yes	Yes	Yes	Yes	Yes	Yes
Wizard PCL 6	Yes	Yes	Yes	Yes	Yes	Yes
Unidriver PCL 5c					Yes	Yes
Unidriver PCL 6					Yes	Yes
PS					Yes	Yes

To enable Driver Management and Configuration, follow these steps during installation:

1. In the software CD-ROM browser screen, click **Customization Utility**.
2. In the **Choose Setup Language** dialog box, select the language of your choice, and then click **OK**.
3. In the **Option** dialog box, click the **Create Customized Installer** option button, and then click **Next**.
4. In the **Installer Type** dialog box, click **Silent Installer...** .
5. In the **Language and Operating System(s)** dialog box, select the language and operating systems of your choice, and then click **Next**.
6. In the **Printer Model(s)** dialog box, select the printer model(s) to include, and then click **Next**.
7. In the **Components** dialog box, select the components you want to install, and then click **Next**.
8. In the **Port** dialog box, select the printer port, and then click **Next**.
9. In the **Driver Configuration** dialog box, select the **Yes, allow me to configure the drivers** option button, and then click **Next** to proceed with the rest of the installation.

Enterprise AutoConfiguration (Internal)

Enterprise AutoConfiguration (EAC) makes it possible for a printer driver that is installed using the Add Printer Wizard or Point and Print to take advantage of HP's bidirectional communication software and AutoConfiguration functionality. The printer driver can therefore be configured with the same settings as the physical configuration of the printer.

Table 87: Drivers that support Enterprise AutoConfiguration

Product	Windows 95, 98, Me	Windows NT 4.0	Windows 2000, XP
HP Color LaserJet 2500	Yes	Yes	Yes
HP LaserJet 4100 and 4100mfp	No	Yes	Yes
HP LaserJet 4200 and 4300	Yes	Yes	Yes
HP Color LaserJet 4550	No	Yes	Yes
HP Color LaserJet 4600	Yes	Yes	Yes
HP Color LaserJet 8150	No	Yes	Yes
HP LaserJet 9000mfp	No	Yes	Yes

EAC loads and uses the bidirectional communication component that is included with the driver only long enough to retrieve the device configuration, and then closes the bidirectional communication.

Windows NT 4.0, Windows 2000, and Windows XP requirements

The driver entry point that is used to invoke normal autoconfiguration is DrvPrinterEvent. EAC design requires that the driver call into a "mini-installer" dynamic-link library (DLL) to set up the bidirectional communication infrastructure that is

needed for successful AutoConfiguration. When the driver has completed its existing AutoConfiguration step, it is required to call back into the mini-installer to clean up. The mini-installer uses a file with an .HPI extension to drive the process of installing and running the bidirectional communication component.

Driver .INF file requirements

The changes required to make EAC work are of two kinds:

- adding bidirectional communication component files
- adding mini-installer files.

Adding bidirectional communication component files

The bidirectional communication component that is installed during Enterprise AutoConfiguration resides in and runs from the driver directory (\2 or \3, depending on the driver version type.) This is in contrast to the bidirectional communication component that is installed using the HP Installer, which resides in the System32 directory. The driver directory is used for two reasons:

- It enables the bidirectional communication component to be distributed with the driver in a Point and Print vend (remotely install) scenario. Only files in the driver directory are vended.
- It provides an independent location from which to run bidirectional communication in the event that an incompatible version is already installed on the system.

INF changes:

CopyFiles= HPBF412I_FILES,**AUTOCFG_FILES**,HPAUTO_FILES

[AUTOCFG_FILES]

HPNRA.EX_, HPNRA.EXE

HPBOID.EX_, HPBOID.EXE

HPBPRO.EX_, HPBPRO.EXE

HPPAPML0.EX_, HPPAPML0.EXE

HPBNRAC2.DL_, HPBNRAC2.DLL

HPBMIAPI.DL_, HPBMIAPI.DLL

HPBOIDPS.DL_, HPBOIDPS.DLL

HPBPROPS.DL_, HPBPROPS.DLL

HPJCMN2U.DL_, HPJCMN2U.DLL

HPJIPX1U.DL_, HPJIPX1U.DLL

HPPAPTS0.DL_, HPPAPTS0.DLL

HPPASNM0.DL_, HPPASNM0.DLL

[DestinationDirs]

DefaultDestDir=66000

HPBF412I_FILES=66000

AUTOCFG_FILES=66000

HPAUTO_FILES=66000

[SourceDisksFiles.x86]

HPBF412E.DL_=1

HPBF412F.DL_=1

HPBF412G.DL_=1

HPBF412H.DL_=1

HPBF412I.PM_=1

HPBF412I.DL_=1

HPBF412I.HL_=1

HPBF412J.DL_=1

HPBF412K.DL_=1

HPDCMON.DL_=1

HPBAFD32.DL_=1

HPBFTM32.DL_=1

HPNRA.EX_=1

HPBOID.EX_=1

HPBPRO.EX_=1

HPPAPML0.EX_=1

HPBNRAC2.DL_=1

HPBMIAPI.DL_=1

HPBOIDPS.DL_=1

HPBPROPS.DL_=1

HPJCMN2U.DL_=1

HPJIPX1U.DL_=1

HPPAPTS0.DL_=1

HPPASNM0.DL_=1

Adding mini-installer files

The mini-installer files consist of the mini-installer DLL (always called HPBMINI.DLL for NT-based platforms) and the .INI file that drives the Mini Installation process (which is named so as to ensure that any given driver uses the correct file to install the version of bidirectional communication that is being included in the .INF).

CopyFiles=HPBF412I_FILES,AUTOCFG_FILES,HPAUTO_FILES

[HPAUTO_FILES]

HPBMINI.DL_, HPBMINI.DLL

<INI File FileName>.HP_ <INI File FileName>.HPI

[DestinationDirs]

DefaultDestDir=66000

HPBF412I_FILES=66000

AUTOCFG_FILES=66000

HPAUTO_FILES=66000

[SourceDisksFiles.x86]

HPBF412E.DL_=1

HPBF412F.DL_=1

HPBF412G.DL_=1

HPBF412H.DL_=1

HPBF412I.PM_=1

HPBF412I.DL_=1

HPBF412I.HL_=1

HPBF412J.DL_=1

HPBF412K.DL_=1

HPDCMON.DL_=1

HPBAFD32.DL_=1

HPBFTM32.DL_=1

HPNRA.EX_=1

HPBOID.EX_=1

HPBPRO.EX_=1

HPPAPML0.EX_=1

HPBNRAC2.DL_=1

HPBMIAPI.DL_=1

HPBOIDPS.DL_=1

HPBPROPS.DL_=1

HPJCMN2U.DL_=1

HPJIPX1U.DL_=1

HPPAPTS0.DL_=1

HPPASNM0.DL_=1

HPBMINI.DL_=1

<INI File FileName>.HP_=1

Windows 95, Windows 98, and Windows Me requirements

Adding bidirectional communication component files

Whereas NT-based platforms store and run printer drivers from their own directory, Windows 95, Windows 98, and Windows Me platforms store drivers in the System folder. This causes problems for EAC because an HP Installer-based bidirectional communication installation also exists in this directory. You do not want to override any existing bidirectional communication files, but to install a new copy and decide whether or not it will be used, depending on what is already on the system. For this reason, all of the bidirectional communication-specific files in the INF are uncompressed into temporary filenames by changing the last letter of the extension to a "T". The temporary names are mapped to the actual file names in the mini-installer .INI file, and the mini-installer itself determines what to do with any existing bidirectional communication on the system before using the version that came with the driver.

INF Changes:

CopyFiles=HPBF412I_FILES,**AUTOCFG_FILES**,HPAUTO_FILES

[AUTOCFG_FILES]

HPNRA.EX_, HPNRA.EXT

HPBOID.EX_, HPBOID.EXT

HPBPRO.EX_, HPBPRO.EXT

HPPAPML0.EX_, HPPAPML0.EXT

HPBNRAC2.DL_, HPBNRAC2.DLT

HPBMIAPI.DL_, HPBMIAPI.DLT

HPBOIDPS.DL_, HPBOIDPS.DLT

HPBPROPS.DL_, HPBPROPS.DLT

HPJCMN2U.DL_, HPJCMN2U.DLT

HPJIPX1U.DL_, HPJIPX1U.DLT

HPPAPTS0.DL_, HPPAPTS0.DLT

HPPASNM0.DL_, HPPASNM0.DLT

[DestinationDirs]

DefaultDestDir=66000

HPBF412I_FILES=66000

AUTOCFG_FILES=66000

HPAUTO_FILES=66000

[SourceDisksFiles.x86]

HPBF412E.DL_=1

HPBF412F.DL_=1

HPBF412G.DL_=1

HPBF412H.DL_=1

HPBF412I.PM_=1

HPBF412I.DL_=1

HPBF412I.HL_=1

HPBF412J.DL_=1

HPBF412K.DL_=1

HPDCMON.DL_=1

HPBAFD32.DL_=1

HPBFTM32.DL_=1

HPNRA.EX_=1

HPBOID.EX_=1

HPBPRO.EX_=1

HPPAPML0.EX_=1

HPBNRAC2.DL_=1

HPBMIAPI.DL_=1

HPBOIDPS.DL_=1

HPBPROPS.DL_=1

HPJCMN2U.DL_=1

HPJIPX1U.DL_=1

HPPAPTS0.DL_=1

HPPASNM0.DL_=1

Adding mini-installer files

The DLL is always called the same thing, but it provides an identification (ID) parameter so that drivers can specify which version of the mini-installer should be used. Version tolerance exists in the mini-installer .INI file by requiring that the .INI file be renamed if it changes in any way from its previous state.

These files also be copied into the driver directory:

CopyFiles=HPBF412I_FILES,AUTOCFG_FILES,**HPAUTO_FILES**

[HPAUTO_FILES]

HPBMINT.DL_, HPBMINT.DLL

HPBMINI.DL_, HPBMINI.DLL

<INI File FileName>.HP_, <INI File FileName>.HPI

[DestinationDirs]

DefaultDestDir=66000

HPBF412I_FILES=66000

AUTOCFG_FILES=66000

HPAUTO_FILES=66000

[SourceDisksFiles.x86]

HPBF412E.DL_=1

HPBF412F.DL_=1

HPBF412G.DL_=1

HPBF412H.DL_=1

HPBF412I.PM_=1

HPBF412I.DL_=1

HPBF412I.HL_=1

HPBF412J.DL_=1

HPBF412K.DL_=1

HPDCMON.DL_=1

HPBAFD32.DL_=1

HPBFTM32.DL_=1

HPNRA.EX_=1

HPBOID.EX_=1

HPBPRO.EX_=1

HPPAPML0.EX_=1

HPBNRAC2.DL_=1

HPBMIAPI.DL_=1

HPBOIDPS.DL_=1

HPBPROPS.DL_=1

HPJCMN2U.DL_=1

HPJIPX1U.DL_=1

HPPAPTS0.DL_=1

HPPASNM0.DL_=1

HPBMINI.DL_=1

HPBMINT.DL_=1

<INI File FileName>.HP_=1

Disabling Enterprise AutoConfiguration

To disable EAC in a driver, simply comment out the CopyFiles that are indicated in the instructions in the .INF file. The exact contents of the CopyFiles lines might differ from one driver to the next.

The installer section for a driver that is not EAC-enabled looks something like this:

; Installer Sections

[HPBF511I.PMD]

DataSection=HPBF511I_DATA

; NON EAC Copy Sections - Un-Comment to Disable EAC

;

CopyFiles=HPBF511I_FILES,LANGMON_FILES

;

; EAC Copy Sections - Comment to Disable EAC

; ;CopyFiles=HPBF511I_FILES,LANGMON_FILES,,AUTOCFG_FILES,HPAUTO_FILES

DataFile=HPBF511I.PMD

The lines in bold typeface show the required change.

The driver installed in this disabled case could result in no extra files that are copied to the driver directory, and no AutoConfiguration is performed on that printer.

However, if existing HP bidirectional communication software is installed and running on the target system, the **Update Now** button is enabled, and the user can invoke that functionality from the driver UI.

Media attributes

Paper tray configurations

The HP LaserJet 4200 and 4300 series printers come with an integral standard 500-sheet input cassette, which is always designated as Tray 2. Up to two optional 500-sheet cassettes can be stacked beneath the printer, providing a Tray 3 and a Tray 4. Likewise, a 1,500-sheet HCI tray can be added to the standard printer, which would then be designated as Tray 3. Another option is to install a 500-sheet cassette, with a 1,500-sheet HCI unit beneath, in which case the 500-sheet unit would be Tray 3 and the HCI unit would be Tray 4. The cassette hardware provides mechanical system for automatically assigning these tray numbers.

The following table indicates the paper tray configurations that are possible for the HP LaserJet 4200 and 4300 series printers.

Table 89: Paper tray configurations for the HP LaserJet 4200 and 4300 series printers

Configurations	Tray number	Tray type	Standard/optional
A	Tray 1	multipurpose tray	standard
	Tray 2	500-sheet tray	standard
B	Tray 1	multipurpose tray	standard
	Tray 2	500-sheet tray	standard
	Tray 3	500-sheet tray	optional
C	Tray 1	multipurpose tray	standard
	Tray 2	500-sheet tray	standard
	Tray 3	500-sheet tray	optional
	Tray 4	500-sheet tray	optional
D	Tray 1	multipurpose tray	standard
	Tray 2	500-sheet tray	standard
	Tray 3	1,500-sheet tray	optional
E	Tray 1	multipurpose tray	standard
	Tray 2	500-sheet tray	standard
	Tray 3	500-sheet tray	optional
	Tray 4	1,500-sheet tray	optional

Note: Envelope feeder and/or duplexing unit possible in any configuration.

Paper-source commands

The PCL 5e escape sequence for paper source is "Esc&l#H" (the "l" is a lowercase "L" rather than the numeral "1"). See the following table for values of #. For example, "Esc& l1H" is the command for tray 2.

The PCL 6 escape sequence for paper source is "ubyte # MediaSource". See the following table for values of #. For example, "ubyte 4 MediaSource" is the command for tray 2.

Table 90: Paper-source commands

Paper source	PCL 5e	PCL 6	PS
Tray 1	4	3	3 ManualFeed false
Tray 2	1	4	0
Tray 3 (500-sheet)	5	5	1
Tray 3 (1,500-sheet)	5	5	5
Tray 4 (500-sheet)	8	7	4
Tray 4 (1,500-sheet)	8	7	5
Envelope feeder	6	6	2
Auto Select	7	1	-
Manual feed	2	2	3 ManualFeed true

Note

The following table lists the features and attributes of various media listed under the Size Is: drop-down menu on the Paper tab. The list order can vary, depending on the printer and operating system. The list contains all the following sizes, and might contain sizes from other drivers.

Table 91: Supported features and attributes by driver

Paper sizes	Width	Height	PCL 5 escape value[1]	PCL 6[2]	PCL 5 margin x, y portrait	PCL 5 margin x,y landscape	PCL 6 margins	PS commands[5]
Letter	216 mm (8.5 inches)	279 mm (11.0 inches)	2	"LETTER"	150,100	120,100	100, 100	"Letter"
Legal	216 mm (8.5 inches)	356 mm (14.0 inches)	3	"LEGAL"	150,100	120,100	100, 100	"Legal"
Executive	184 mm (7.25 inches)	267 mm (10.5 inches)	1	"EXEC"	150,100	120,100	100, 100	"Executive"
Executive (JIS)			18	"JISEXEC"				"W612h936"
A5	148 mm (5.83 inches)	210 mm (8.27 inches)	25	"A5"	150,100	120,100	100, 100	"A5"
A4	210.0 mm (8.27 inches)	297 mm (11.69 inches)	26	"A4"	142, 100	118, 100	100, 100	"A4"
Envelope Commercial #10	105 mm (4.12 inches)	241 mm (9.5 inches)	81	"COM10"	150, 100	120, 100	100, 100	"Env10"
Envelope DL (ISO)	110 mm (4.3 inches)	220 mm (8.66 inches)	90	"DL"	142, 100	118, 100	100, 100	"EnvDL"
Envelope C5 (ISO)	162 mm (6.38 inches)	229 mm (9.01 inches)	91	"C5"	142, 100	118, 100	100, 100	"EnvC5"
Envelope B5 (ISO)	176 mm (6.93 inches)	250 mm (9.84 inches)	100	"B5 ENV"	142, 100	118, 100	100, 100	"EnvISOB5"
Envelope Monarch	98 mm (3.87 inches)	190 mm (7.5 inches)	80	"MONARCH"	150, 100	120,100	100, 100	"EnvMonarch"
B5 (ISO)3	176 mm (6.93 inches)	250 mm (9.84 inches	65	"ISOB5"	142, 100	118, 100	100, 100	"ISOB5"
B5 (JIS)	182 mm (7.16 inches)	257 mm (10.12 inches)	45	"JIS B5"	142,100	142, 100	100, 100	"B5"
Double Post card	100 mm (3.94 inches)	148 mm (5.83 inches)	???	???	???	???	100, 100	"DoublePostcard"

Paper sizes	Width	Height	PCL 5 escape value[1]	PCL 6[2]	PCL 5 margin x, y portrait	PCL 5 margin x,y landscape	PCL 6 margins	PS commands[5]
16K[3]	197 mm (7.75 inches)	273 mm (10.75 inches)	17	"ROC16K"	150, 100	120, 100	100, 100	"W558h774"
Custom (leading edge) (other edge)	Minimum: 76 mm (3.0 inches) Maximum: 148 mm (8.5 inches)	Minimum: 127 mm (5.0 inches) Maximum: 216 mm (14.0 inches)	101	4	4	4	4	true

[1]The PCL escape sequence for paper size is Esc&1#A. The values in this column are for #.

[2]The PCL 6 command for paper size is ubyte array(String)MediaSize. The values in this column are the values for "String".

[3]In Windows NT 4.0, this paper size is treated as a custom size.

[4]For custom sizes, the PCL 6 Wizard specifies actual dimensions - for example, for 8-inch by 9-inch custom size, "real32_8.000000 9.000000 CustomMediaSize".

[5]The PS command for paper size is "PageSize".

Table 92: Supported input media types

Input media types (PS string)	Tray 1	Tray 2	Tray 3	Tray 4	Envelope feeder	1,500-sheet tray
Plain	Y	Y	Y	Y	Y	Y
Preprinted	Y	Y	Y	Y	Y	Y
Letterhead	Y	Y	Y	Y	Y	Y
Transparency	Y	Y	Y	Y	N	Y
Prepunched	Y	Y	Y	Y	Y	Y
Labels	Y	N	N	Y	Y	Y
Bond	Y	Y	Y	Y	Y	Y
Recycled	Y	Y	Y	Y	Y	Y
Color	Y	Y	Y	Y	Y	Y
Cardstock[1]	Y	Y	Y	Y	Y	Y
Rough	Y	Y	Y	Y	Y	Y

[1]Tray 1 accepts cardstock at a maximum weight of 164 g/m^2 (45-lb).

The following table identifies the media types that are supported by the HP LaserJet 4200 and 4300 series printers stapler/stacker.

Table 93: HP LaserJet 4200 and 4300 Stacker and Stapler/Stacker

Output media types	Stapler/Stacker			
	Stacker bin		Booklet bin	Stapling
	Face down	Face up		
Plain	Y	Y	Y	Y
Preprinted	Y	Y	Y	Y
Letterhead	Y	Y	Y	Y
Transparency	Y	Y	N	N
Prepunched	Y	Y	Y**1**	Y**2**

Labels	Y	N	N	N
Bond	Y	Y	Y	Y
Recycled	Y	Y	Y	Y
Color	Y	Y	Y	Y
Card stock	Y	Y**3**	Y**3,4**	Y**3,5**
Rough	Y	Y	Y	Y

[1]Mechanically feasible, but impractical.

[2]Media must be properly oriented when loaded in selected input trays.

[3]Up to a weight of 199 grams per square meter. Between 199 grams per square meter, and 216 grams per square meter, only face-up delivery is supported.

[4]Only covers are supported.

[5]Stapling is allowed to a maximum weight of 199 grams per square meter.

PCL 5e and PCL 6 custom paper sizes

Note The PS driver does not support user-defined media sizes.

The following table shows custom paper sizes available for the HP LaserJet 4200 and 4300 series printers.

Table 94: PCL 5e and PCL 6 custom paper sizes

Tray	Dimensions	Minimum	Maximum
Tray 1	Width	76 mm (3.0 inches)	215 mm (8.5 inches)
	Height	127 mm (5.0 inches)	356 (14.0 inches)
Tray 2	Width	148 mm (5.83 inches)	215 mm (8.5 inches)
	Height	210 mm (8.27 inches)	356 mm (14.0 inches)
Trays 3 & 4 (500-sheet)	Width	148 mm (5.83 inches)	215 mm (8.5 inches)
	Height	210 mm (8.27 inches)	356 (14.0 inches)
Trays 3 & 4 (1,500-sheet)	Width	210 mm (8.27 inches)	215 mm (8.5 inches)
	Height	279 mm (11.0 inches)	356 (14.0 inches)
Envelope feeder	Width	98 mm (3.87 inches)	176 mm (6.93 inches)
	Height	190 mm (7.5 inches)	249 mm (9.84 inches)
Duplexing unit	Width	182 mm (7.17 inches)	215 (8.5 inches)
	Height	257 mm (10.12 inches)	356 (14.0 inches)

Paper Type commands

The PCL 5e escape sequence for paper type is "Esc&n#Wdpapertype", where "n#" is the number of characters in the paper type plus 1. For example, in the sequence "Esc&n6WdPlain", "Plain" has 5 letters plus 1, for a total of 6.

For the command to work properly, at least one of the paper trays in the printer must be configured at the control panel for the paper type used in the command.

Note Some paper type options listed in the following table might not be defined in the printer driver.

Table 95: Paper-type commands

Esc&	n#	Wd	Paper type
Esc&	5	Wd	Bond
Esc&	10	Wd	Cardstock[1]
Esc&	6	Wd	Color
Esc&	7	Wd	Labels
Esc&	11	Wd	Letterhead

Esc&	n#	Wd	Paper type
Esc&	6	Wd	Plain
Esc&	11	Wd	Preprinted
Esc&	11	Wd	Prepunched
Esc&	9	Wd	Recycled
Esc&	6	Wd	Rough
Esc&	13	Wd	Transparency[2]
Esc&	9	Wd	Envelope

[1]The correct command for cardstock is "Esc&n11WdCard Stock", with a space between the "d" and the "S", and with an uppercase "S".

[2] You must spell out the word "Transparency" in the string, although it is abbreviated on the printer control panel.

Network administrator software (Internal)

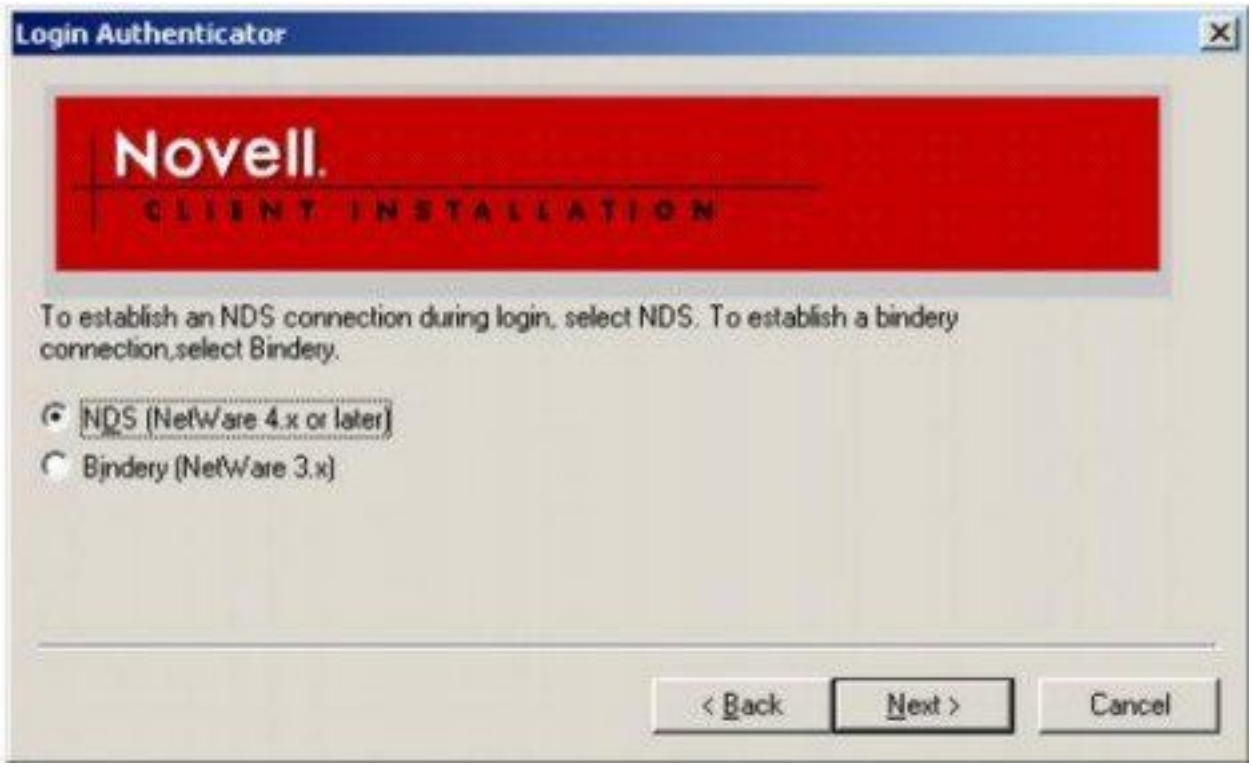

Login Authenticator
Novell.
CLIENT INSTALLATION
To establish an NDS connection during login, select NDS. To establish a bindery connection,select Bindery.
NDS (NetWare 4.x or later)
Bindery (NetWare 3.x)
< Back
Next >
Cancel

Figure 89: NDS Login Authenticator dialog box

Click **Bindery (NetWare 3.*x*** to install the bindery mode.

Note In the bindery mode, any functionality associated with NDS connectivity is lost.

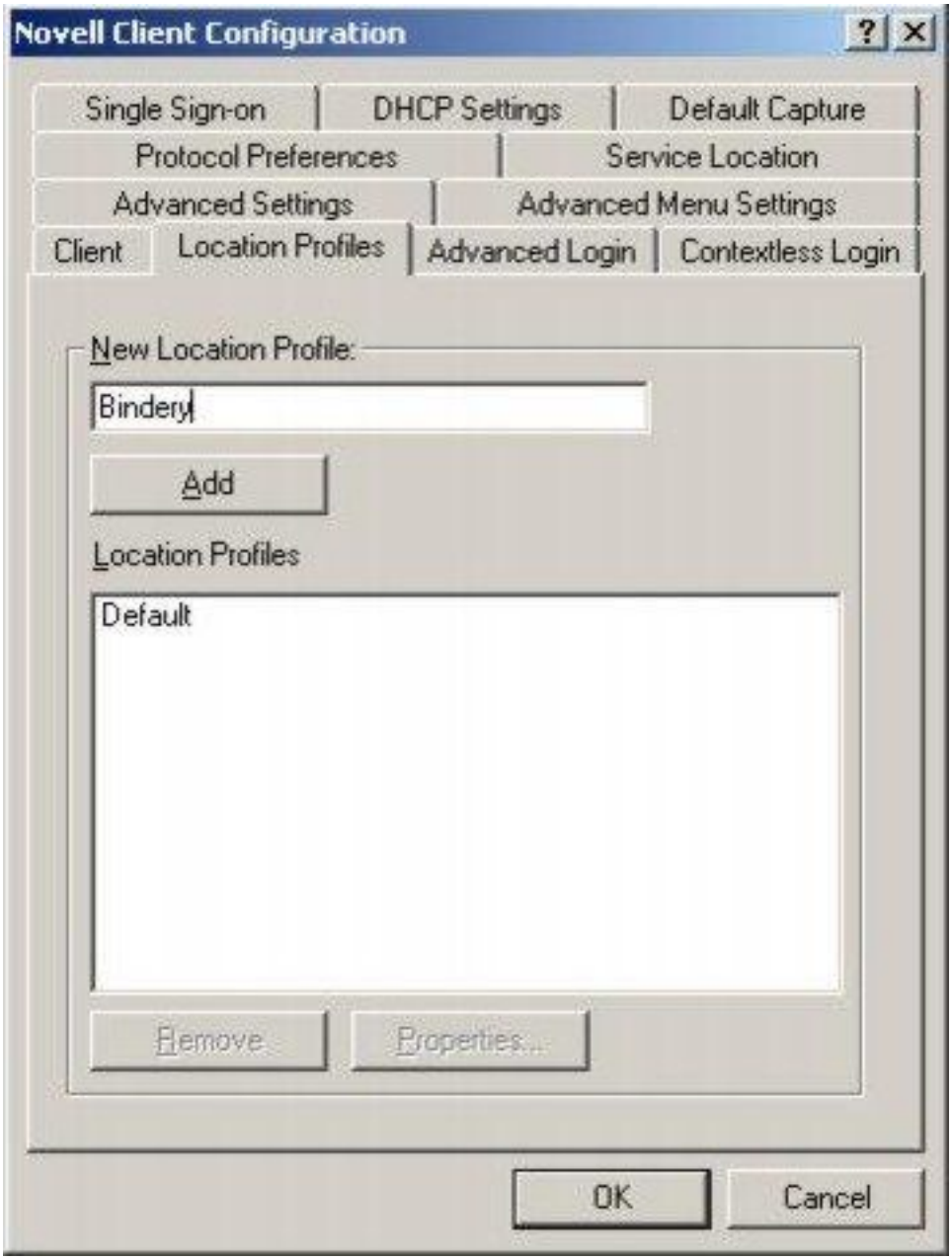
To determine whether a workstation client has been previously loaded as bindery or NDS, do the following:

1. Right-click the Novell **N** Icon in the taskbar (or Click **Start**, click **Programs**, click **Novell**, and then click **Novell login**).
2. Click **NetWare Login**.
3. Click **Advanced** to expand the window.
4. The first tab reads **Bindery** or **NDS**, depending on the installation.

Setting up an NDS-installed client to operate in bindery emulation mode (Internal)

Note These instructions apply to Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000, and Windows XP, with slight variations in the appearance of the menus.

1. Right-click the red **N** icon in the system tray.
2. In the menu that appears, click **Novell Client Properties...**. A menu titled **Novell Client Configuration** appears.
3. Click the **Location Profiles** tab.
4. Type "Bindery" into the **New Location Profile** field, and then click **Add** (Do not type the quotation marks. The word "Bindery" is not case-sensitive.) into .


Novell Client Configuration
Single Sign-on
DHCP Settings
Default Capture
Protocol Preferences
Service Location
Advanced Settings
Advanced Menu Settings
Client
Location Profiles
Advanced Login
Contextless Login
New Location Profile:
Bindery
Add
Location Profiles
Default
Remove
Properties...
OK
Cancel

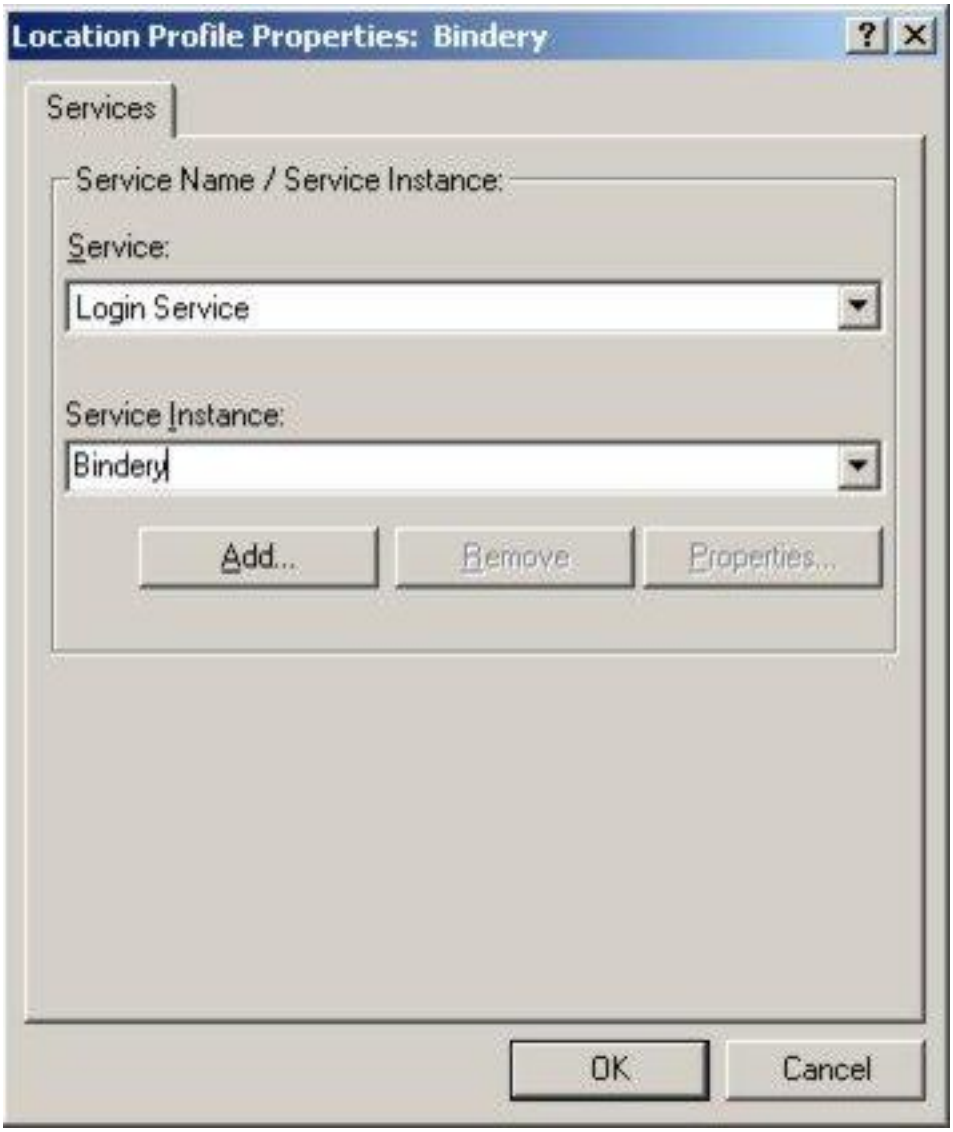


Figure 91: Location Profile Properties: Bindery dialog box

6 In the **Service Instance** field, type "Bindery" (without the quotation marks), and then click **Add**.

7 In the **Novell Login** dialog box (see the following illustration), click the **Bindery** tab.

Novell Login
Novell. Client
FOR WINDOWS NT/2000
Save profile after successful login
Credentials
NDS
Bindery
Script
Windows NT/2000
Dial-up
Active Authenticator
Server:
OK
Cancel

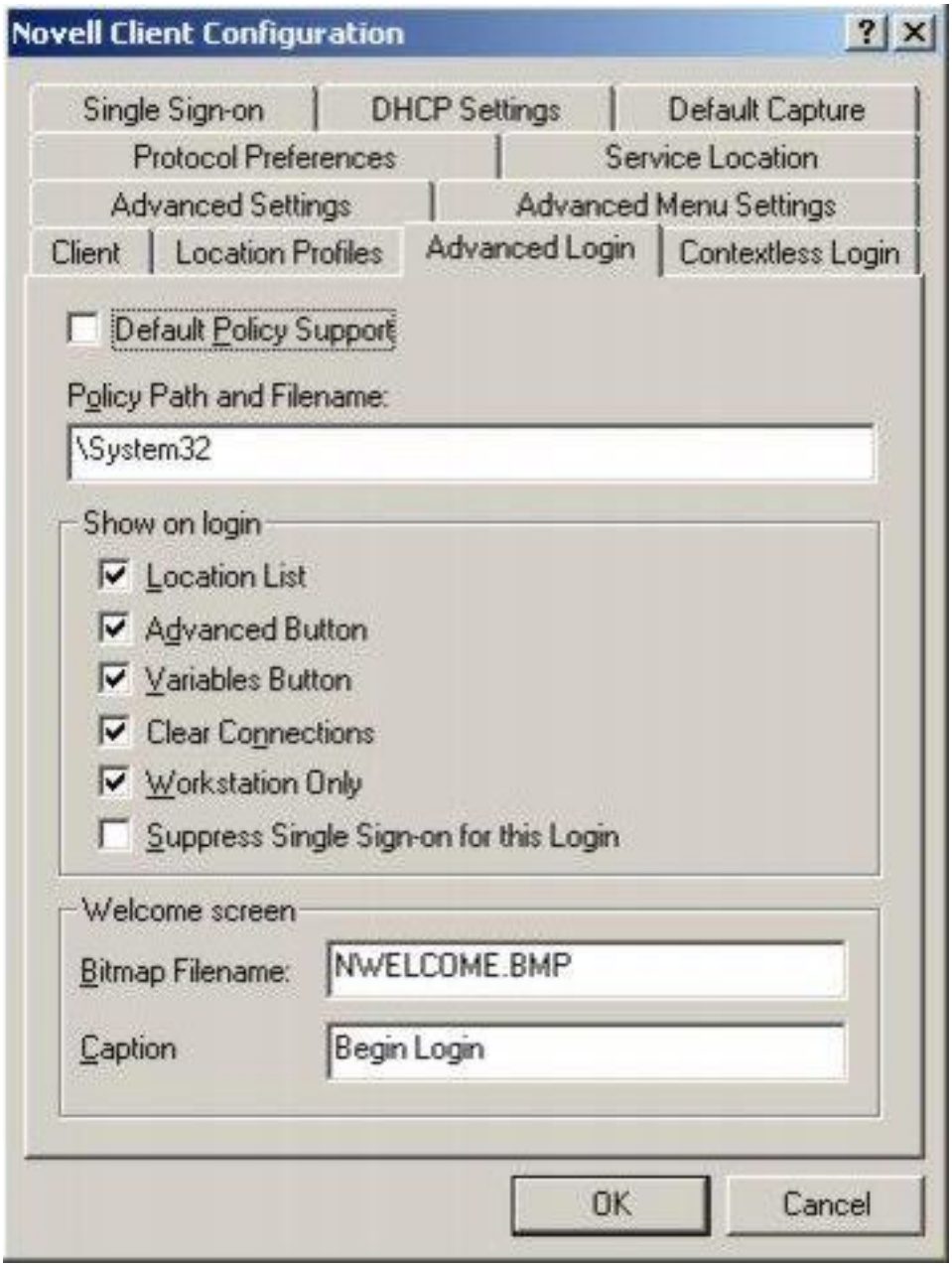


Figure 93: Novell Client Configuration dialog box

12 The setup is now complete. To close the window, click **OK**.

13 Right-click the red **N** icon located in the system tray, and then click **NetWare Login** to log on to the server again. The **Location** field appears. The drop-down menu contains two fields: **Default** (the NDS login) and **Bindery**. Select **Bindery**, and then continue the normal login process.

14 Once you have logged in, confirm the connections (see "Determining the server connection"), and make sure the printer is connected in a bindery mode.

Using Jet Admin 3.42/4.2 to build Novell queues (Internal)

After Jet Admin has been installed, open the program and select the **Options** menu, and then click **Preferences**.

Note The Novell Client software must be installed before HP Jet Admin.

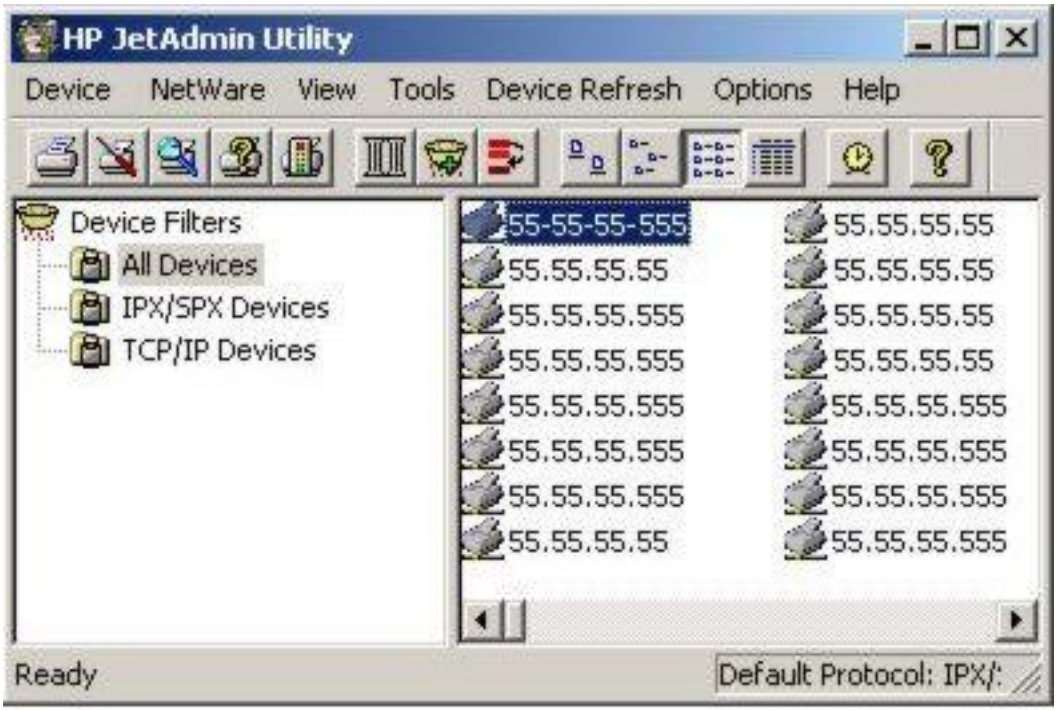
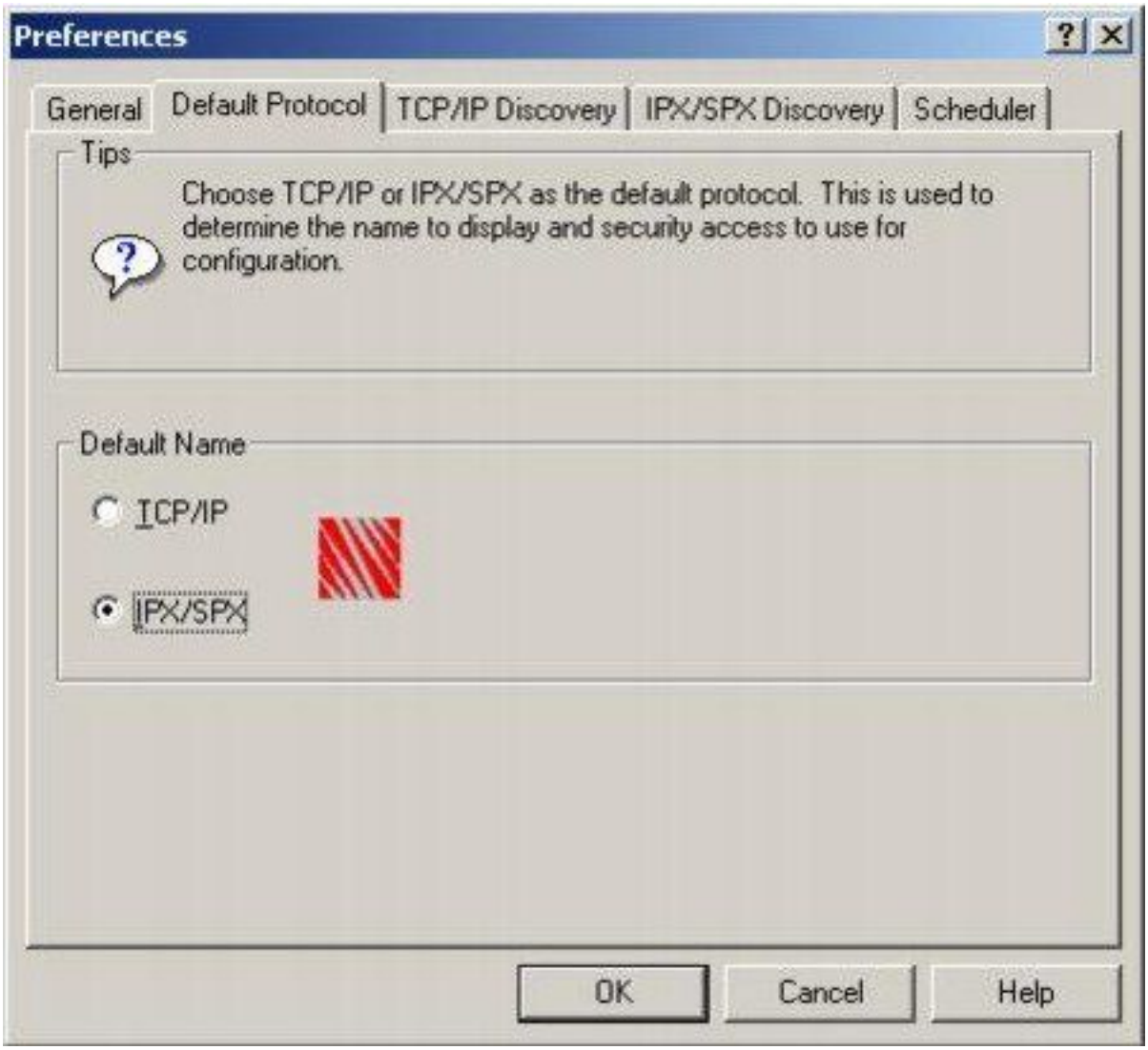


Figure 94: HP JetAdmin Utility window

In the Preferences window (shown here), click **Default Protocol** and make sure **IPX/SPX** is selected. Return to Jet Admin by clicking **OK**.



New Device
Tips
Select the Hardware Address of the unconfigured device, then press "Configure". If the device does not appear in this list, select "Update Database and refresh" from the "Device Refresh" menu.
NOTE: The Hardware Address of a printer can be obtained from the self test/configuration page.
Unconfigured Devices
0001E623E2DB
0001E62421FC
0001E6255C9D
0001E627732E
0001E627E070
0001E627E0C6
0001E627E32C
0001E6289A97-Port #1
0001E6289A97-Port #2
0001E6289A97-Port #3
0001E62FDC63
Configure...
Close
Help

In the next window, type the name of the printer and a description or the location of the printer.

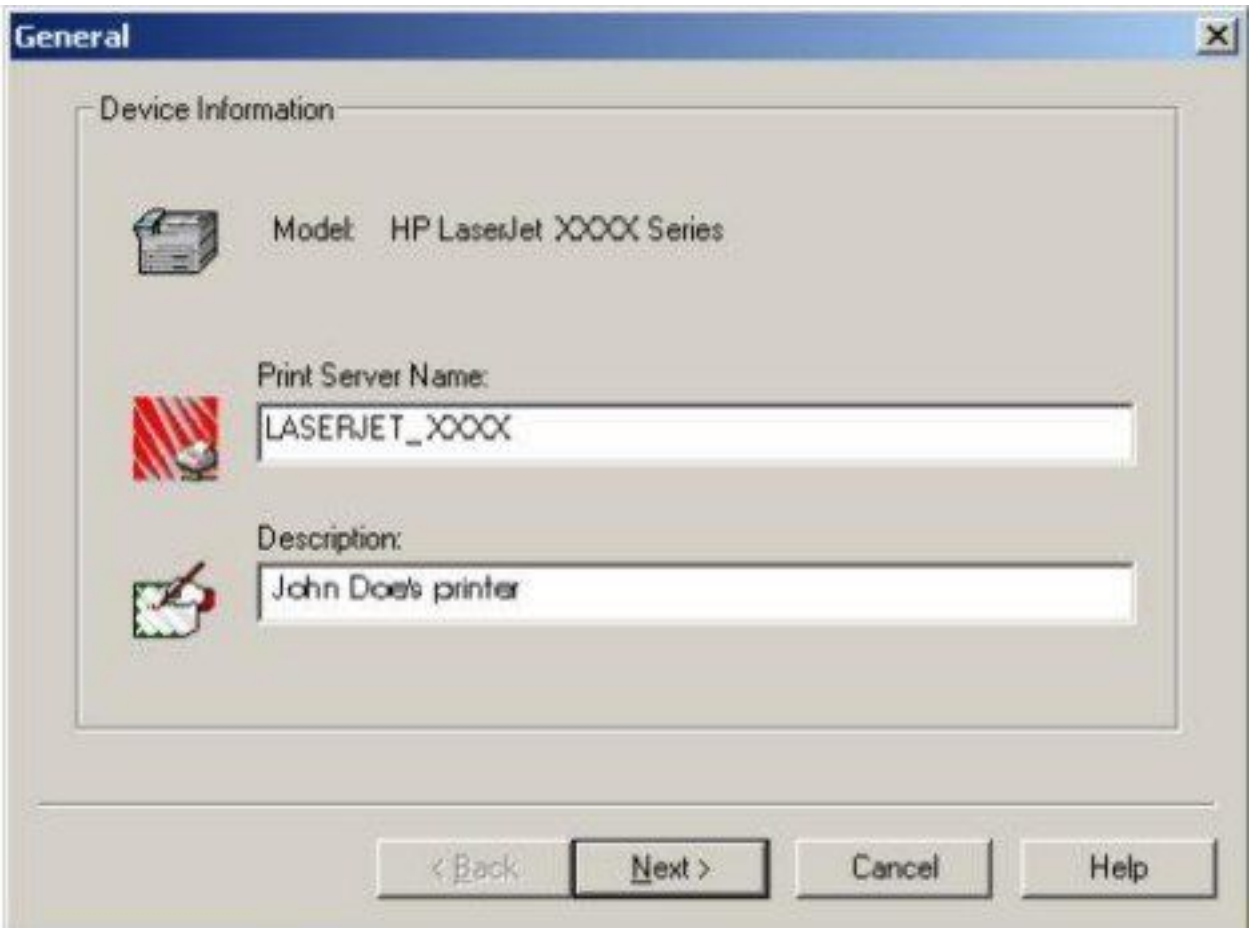


Figure 97: General Device Information dialog box

Click **Next**. Use the **Netware** dialog box to build either a NetWare Directory Services queue or a bindery queue. A third option is to bypass this window by clicking **Next**, leaving the default settings. You can then make the TCP/IP assignments without building a queue.

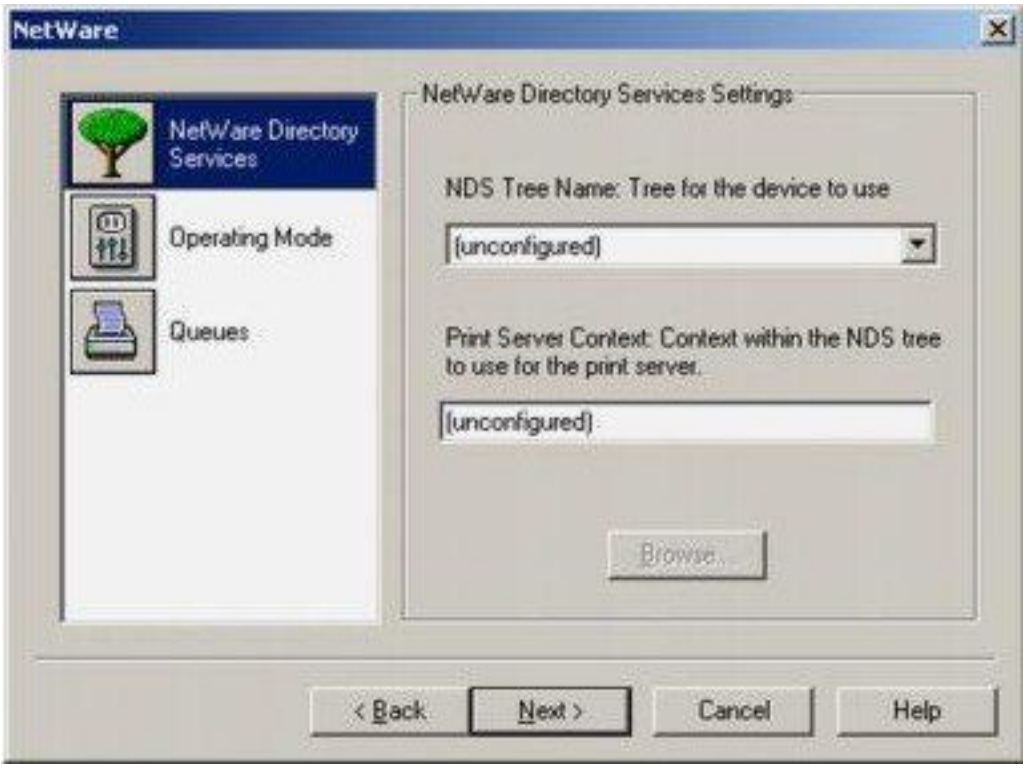


Figure 98: NetWare dialog box

Building a bindery queue (Internal)

To build a bindery queue, leave the fields on the right (see the previously shown figure, "General Device Information dialog box") unconfigured and select the **Queues** icon on the left, as shown in the following illustration.

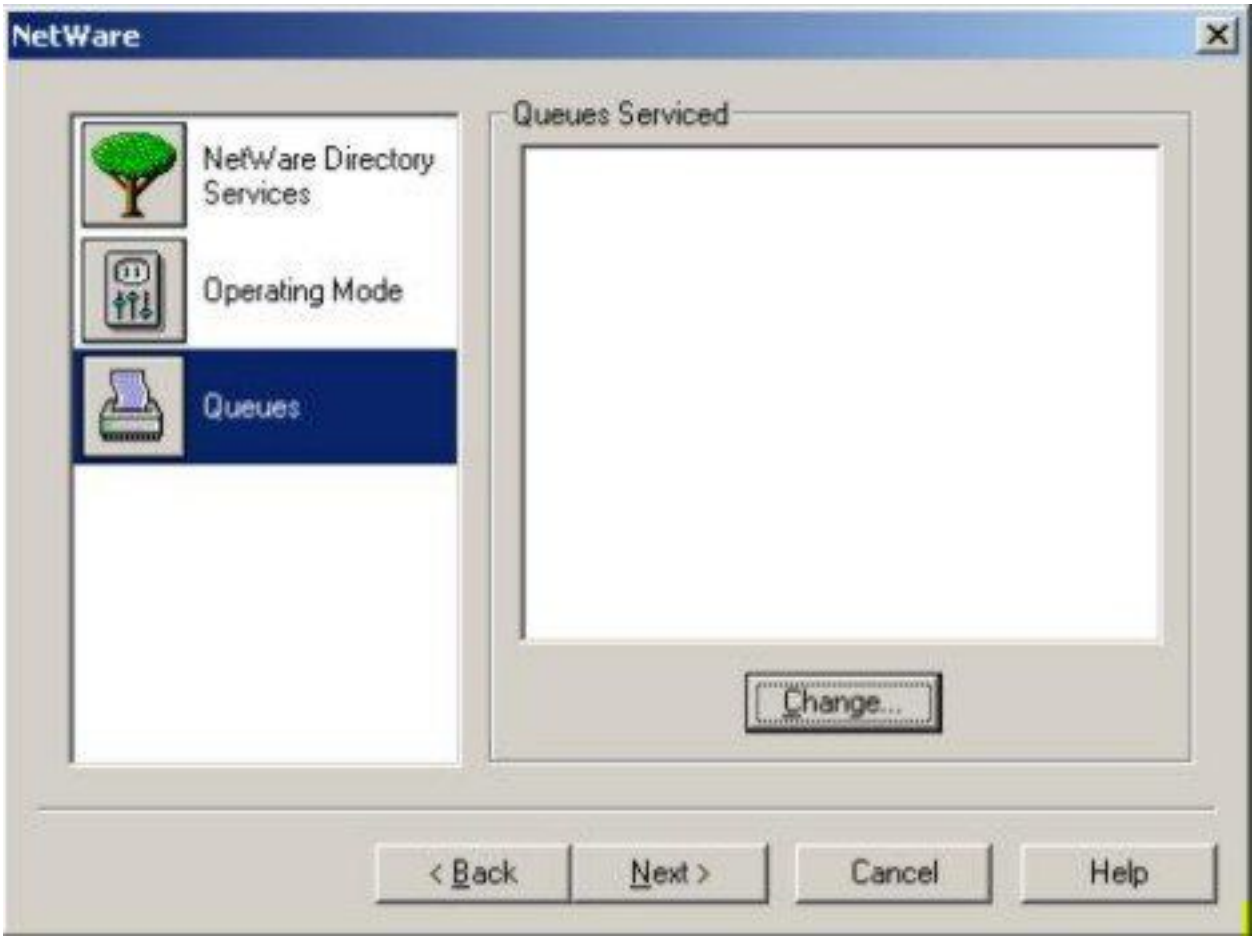


Figure 99: NetWare dialog box - queues serviced

Click **Change**. The **Queues** dialog box appears, as shown in the following illustration.

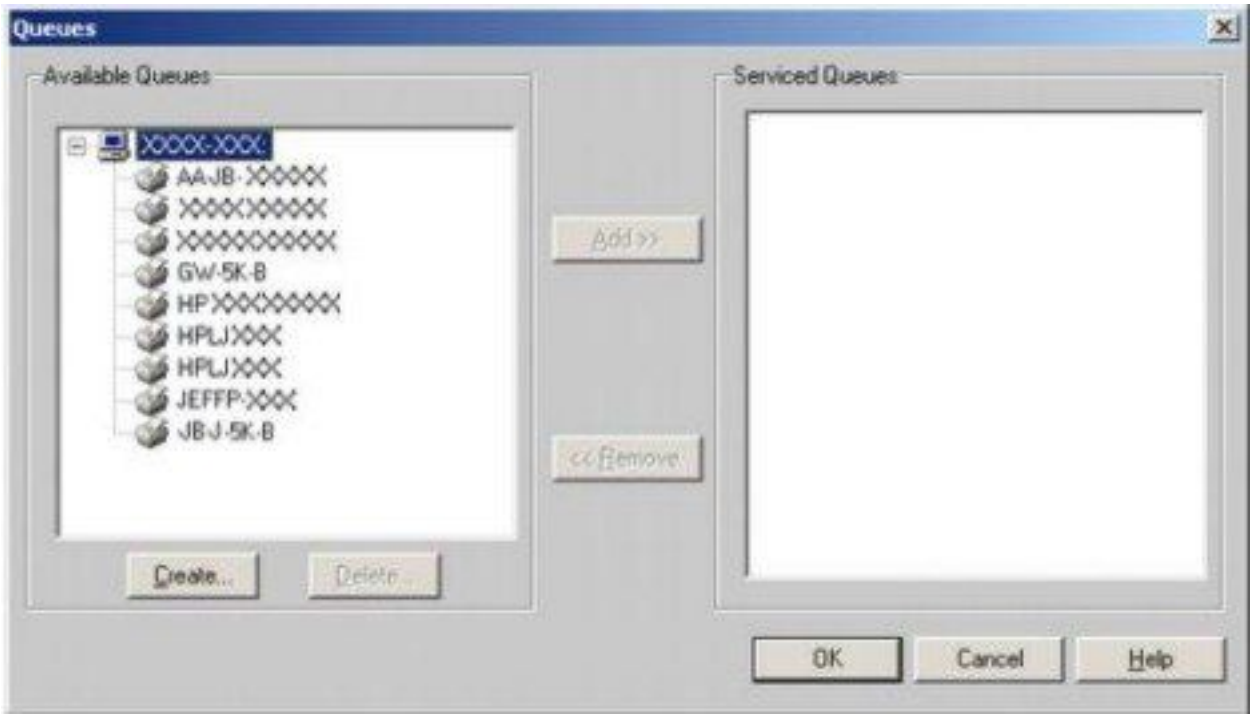


Figure 101: Create Queue dialog box

Type the queue name that you have chosen in the **Queue Name** field. Use the **File Server** drop-down menu to select the Novell server you want to use, and then click **OK**. The next NetWare window shows the server you selected and the printer queue on the right side (see the following illustration). Click **Next**.

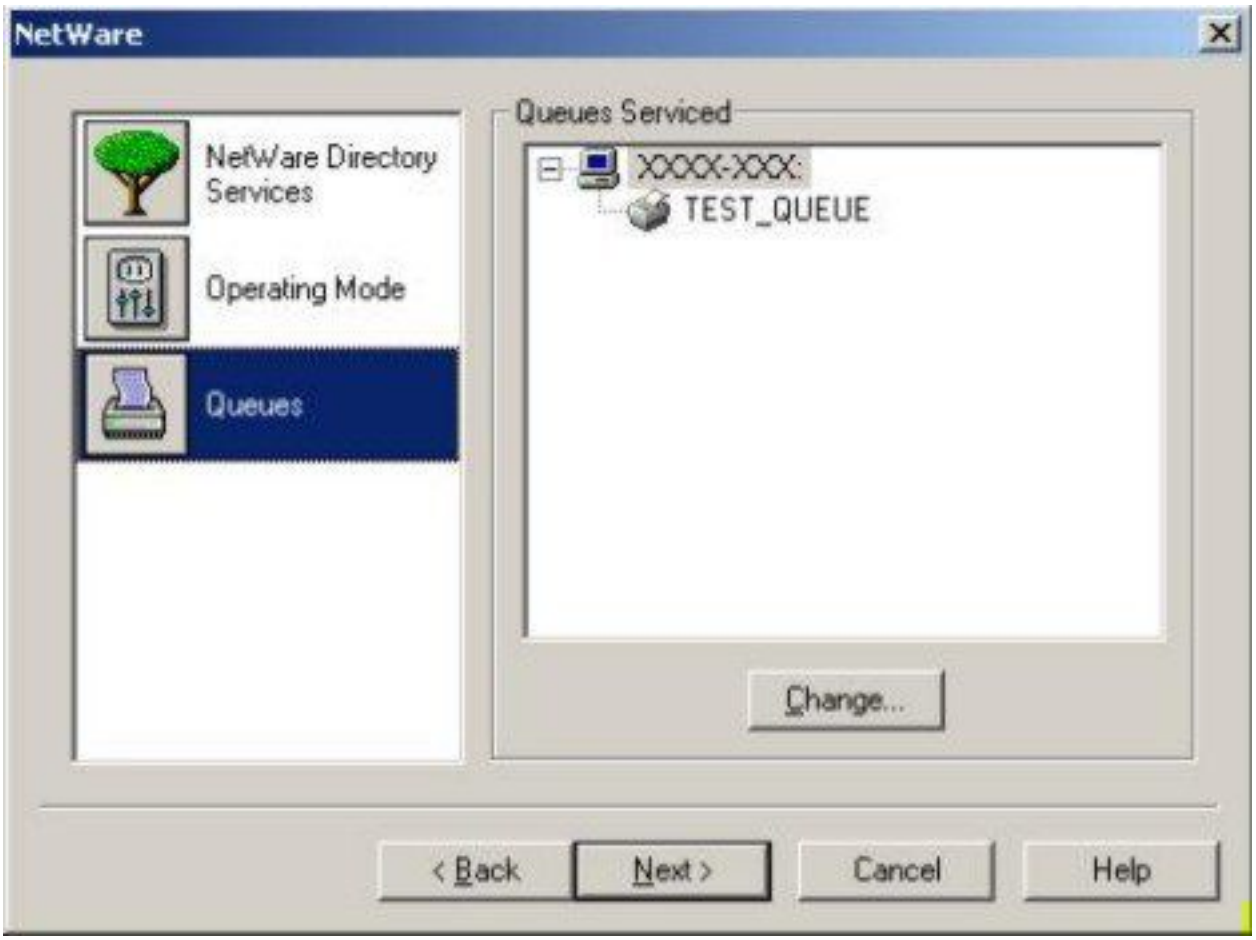
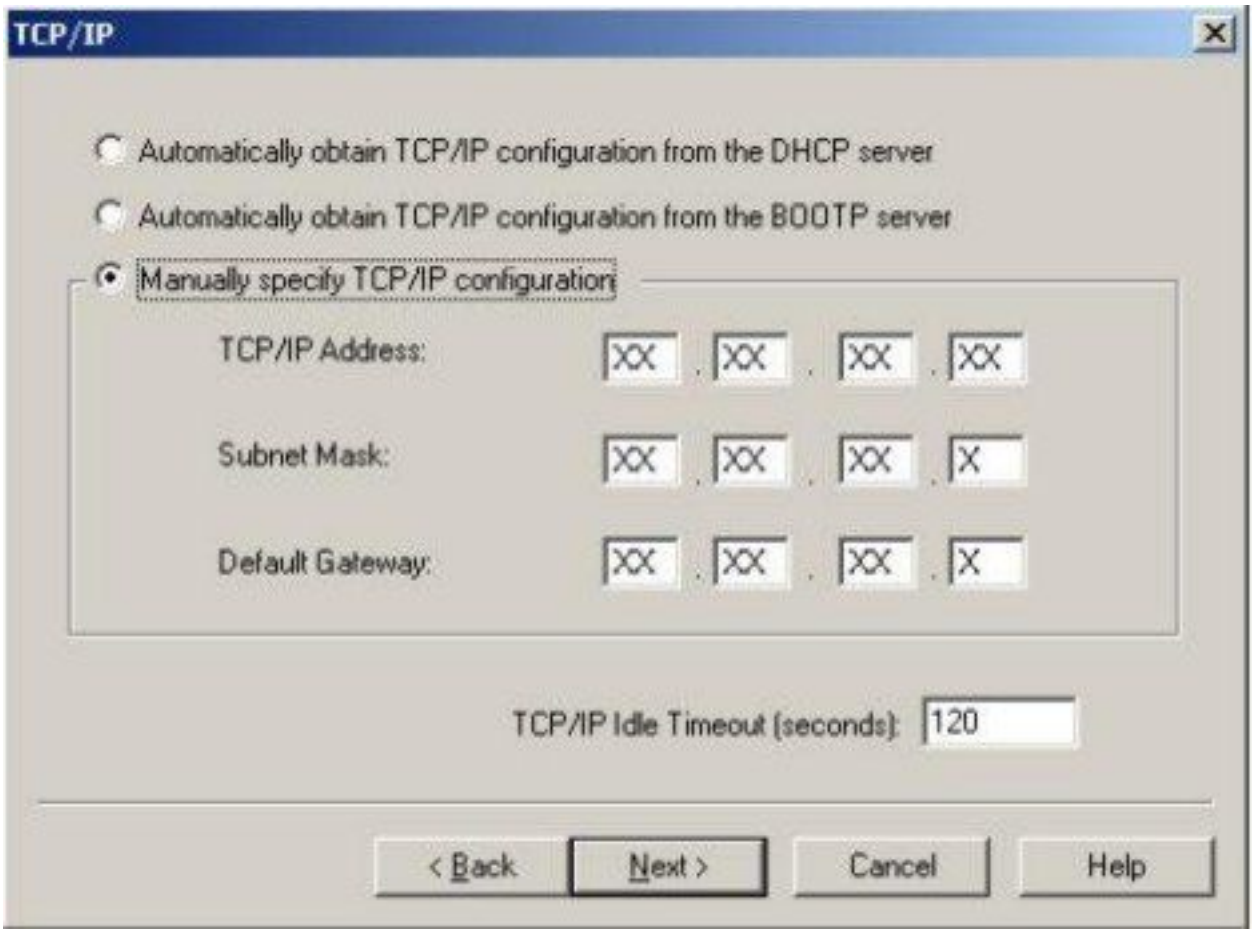


Figure 102: NetWare dialog box, displaying queues serviced

In the dialog box that appears (see the following illustration), type the TCP/IP information for the Jetdirect card/server.



Building an NDS queue

Figure 104: NetWare dialog box - beginning an NDS queue

Instead of leaving the **NDS Tree Name: Tree for the device to use** field unconfigured, click the drop-down menu and select a Novell tree. The correct corresponding server context appears. You can manually change the content if it is not correct.

Click the **Operating Mode** icon in the left window for the mode you want to use. Then click the **Queues** icon on the left pane (see the following illustration).

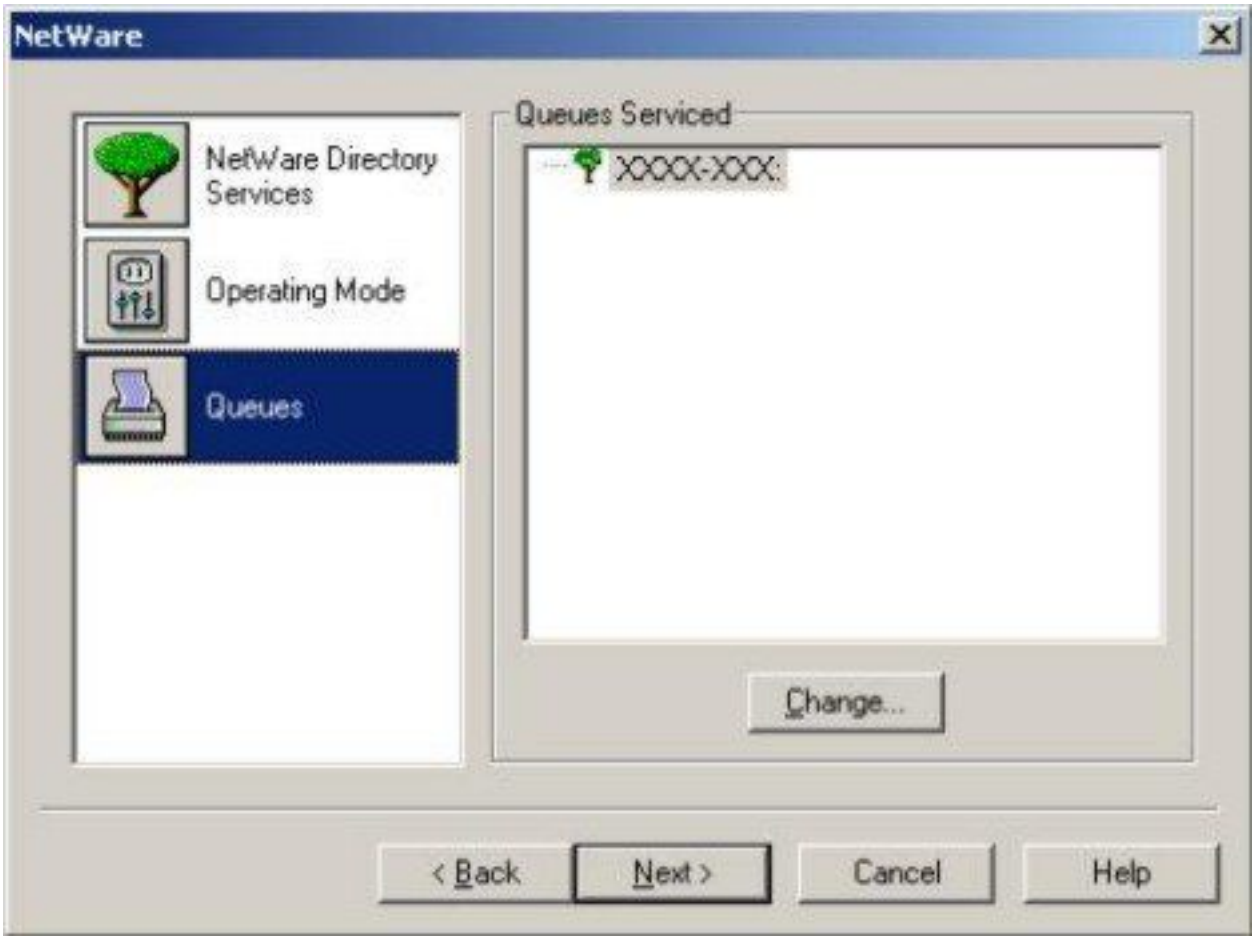


Figure 105: NetWare dialog box - queues serviced

Click **Change**. This screen, shown in the following illustration, differs slightly from the bindery version of the same window. In this window, a tree structure appears on the left side, indicating the Novell Tree. Click the icon.

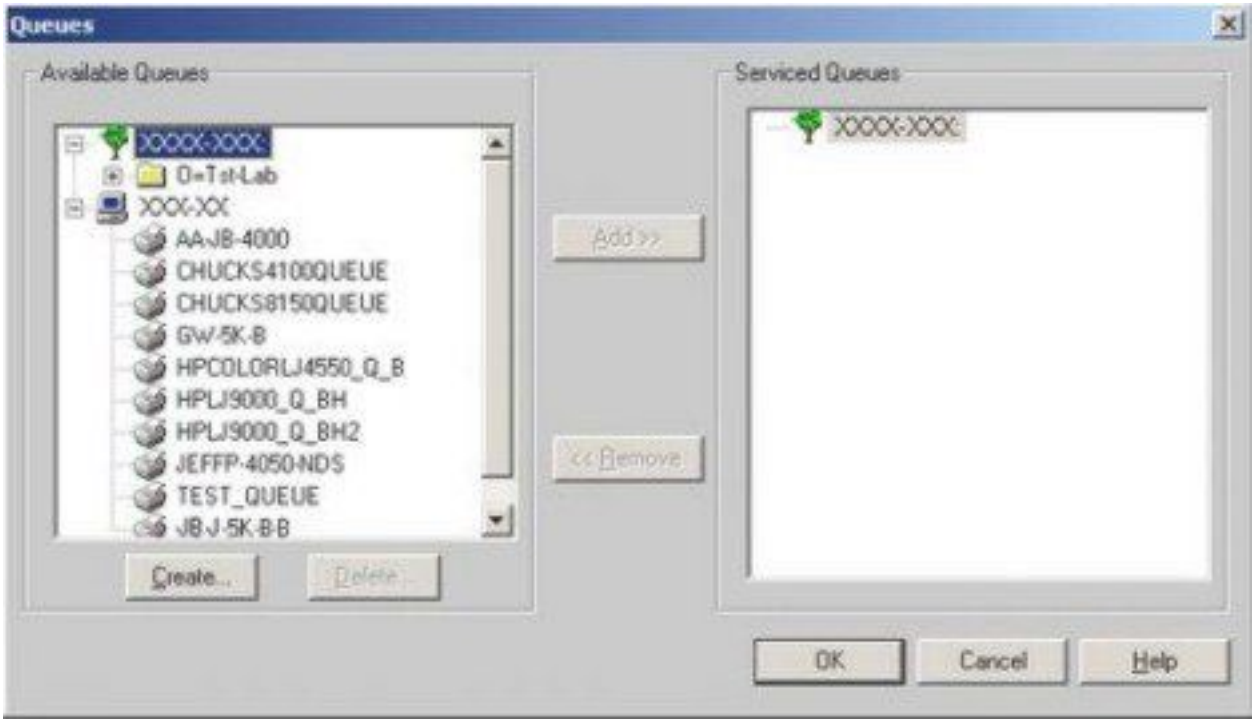
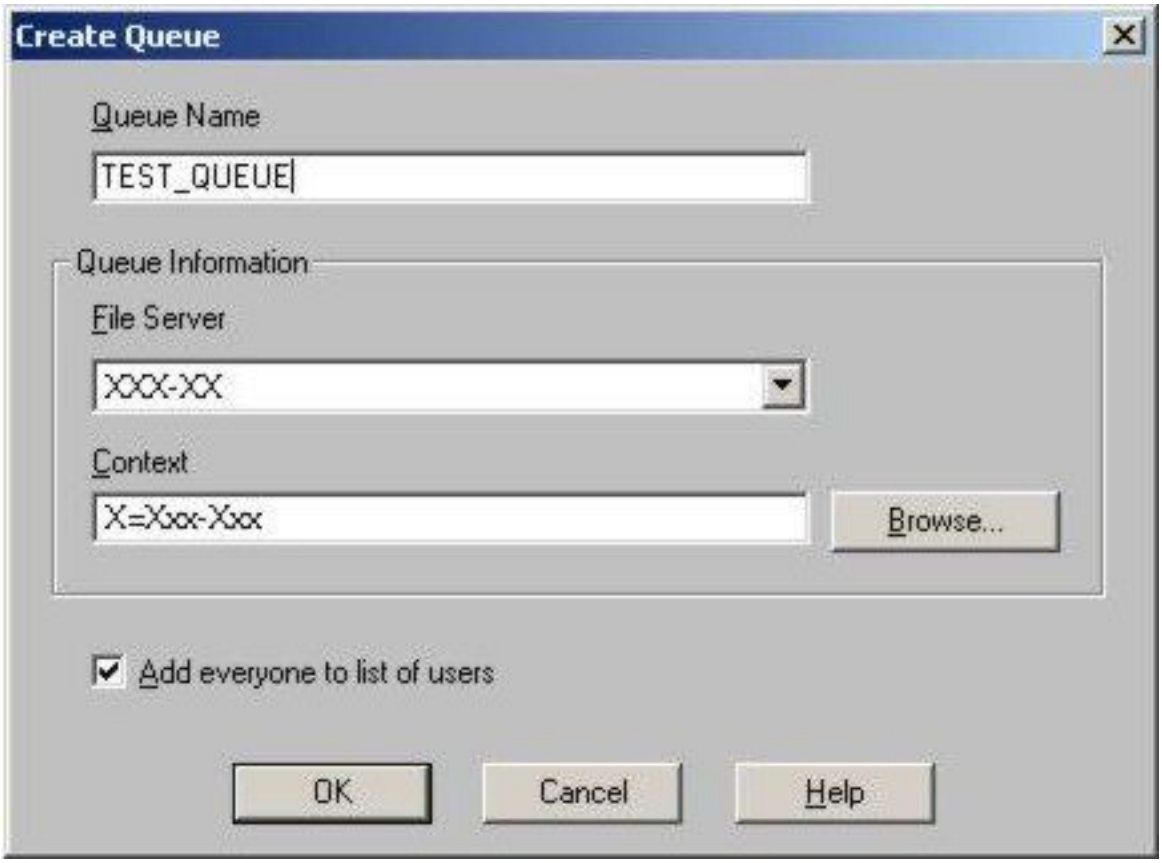
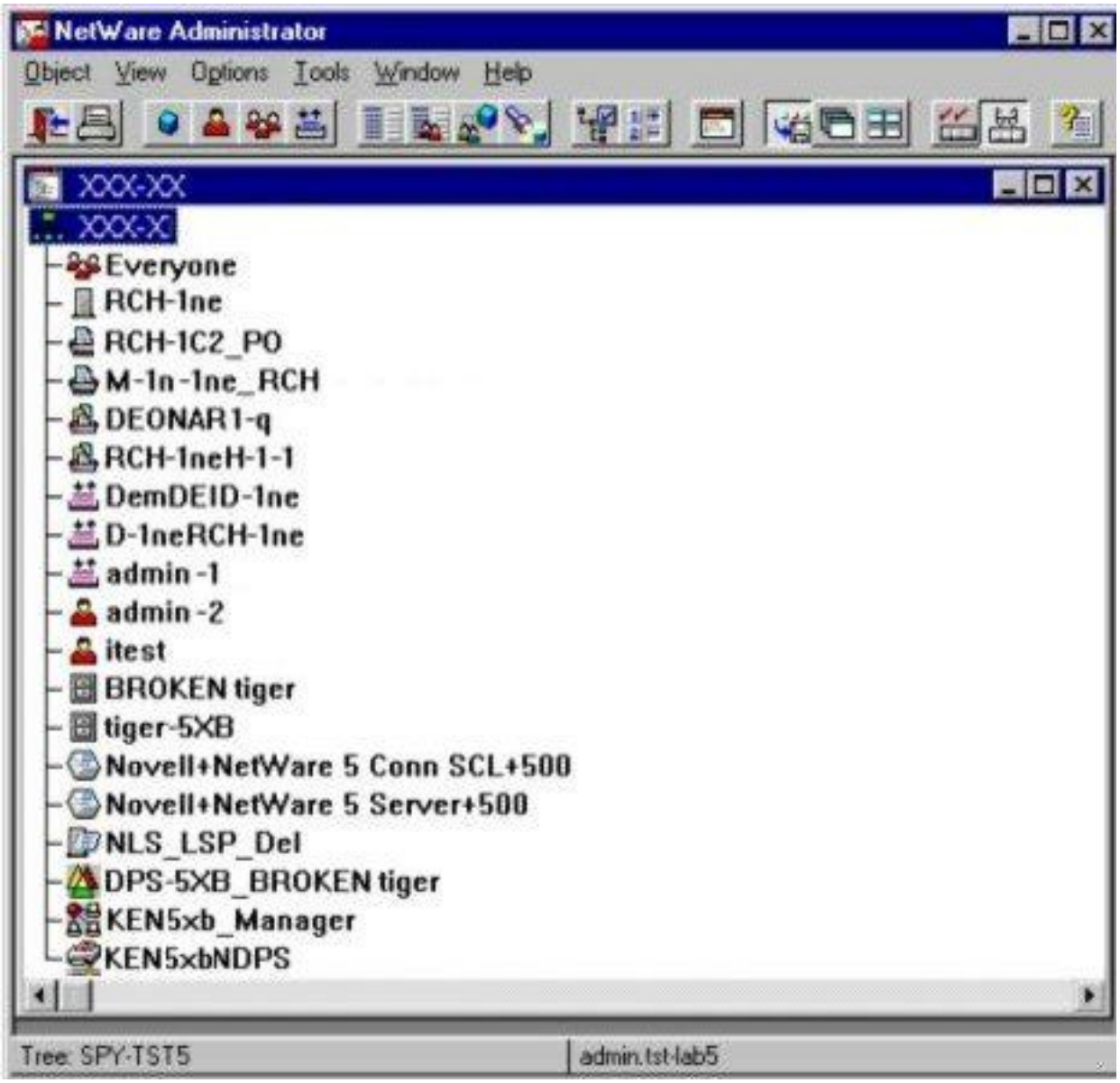


Figure 106: Queues dialog box - NDS queue

Type the queue name you want to use (see the following illustration), verify that the file server and context are correct, and then click **OK**. The remaining process is the same as shown in the figure entitled "Create Queue dialog box").




NetWare Administrator
Object View Options Tools Window Help
XXX-XX
XXX-X
Everyone
RCH-1ne
RCH-1C2_PO
M-1n-1ne_RCH
DEONAR1-q
RCH-1neH-1-1
DemDEID-1ne
D-1neRCH-1ne
admin-1
admin-2
itest
BROKEN tiger
tiger-5XB
Novell+NetWare 5 Conn SCL+500
Novell+NetWare 5 Server+500
NLS_LSP_Del
DPS-5XB_BROKEN tiger
KEN5xb_Manager
KEN5xbNDPS
Tree: SPY-TST5
admin.tst-lab5

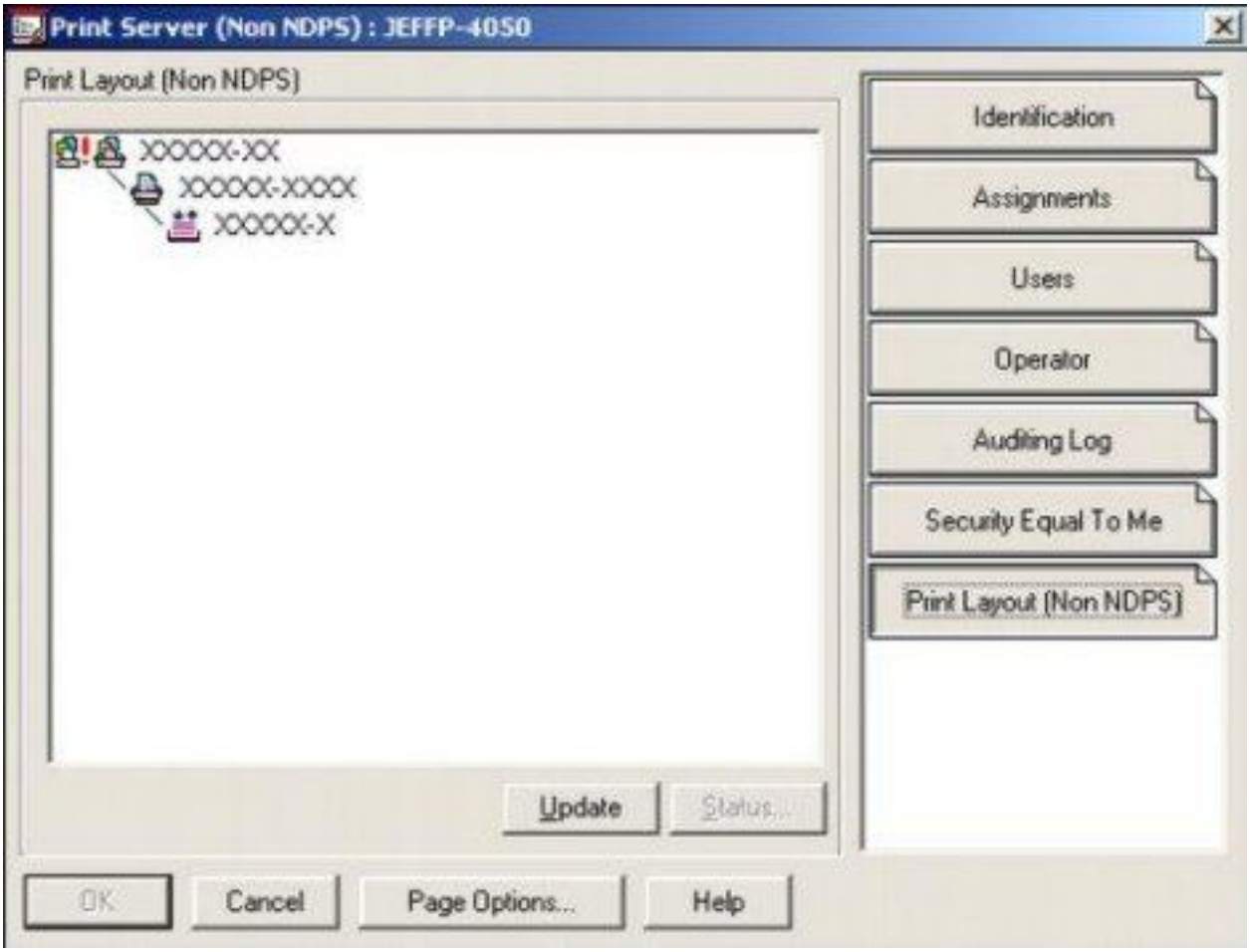
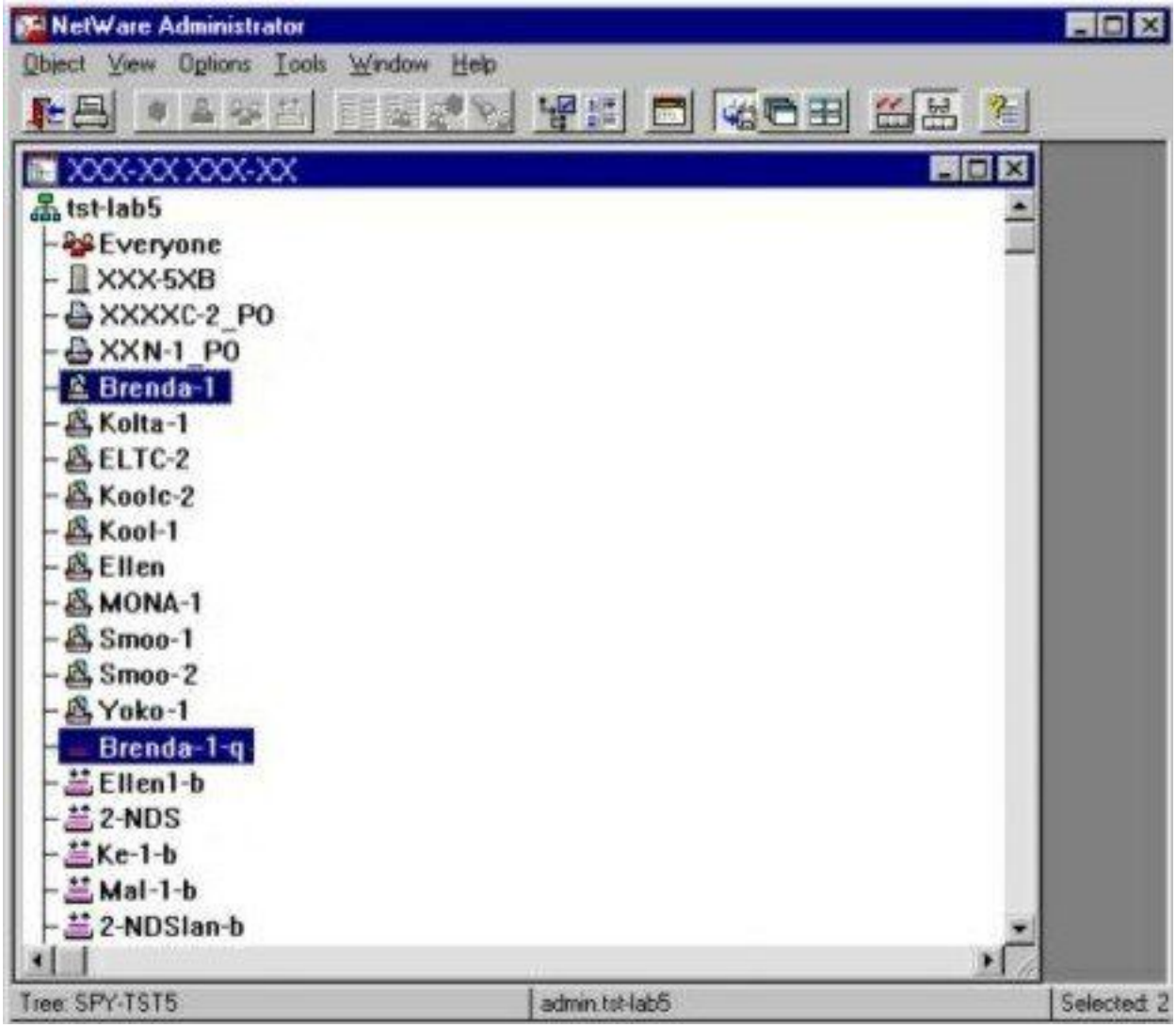

Print Server (Non NDPS) : JEFFP-4050
Print Layout (Non NDPS)
XXXXX-XX
XXXXX-XXXX
XXXXX-X
Update
Status...
Identification
Assignments
Users
Operator
Auditing Log
Security Equal To Me
Print Layout (Non NDPS)
OK
Cancel
Page Options...
Help

Figure 109: Print Layout of an NDS Queue

In the following screen shot (figure 90), the three objects associated with an NDS print queue are highlighted. To build a new queue for any printer, the three current objects must first be deleted. To delete an object, select the object, and then press the **DEL** key on the keyboard. You can also click the first object and simultaneously press the **CTRL** key to select more than one item.

Figure 110: NDS print queue objects (NWAdmin32)

The next screen shows the two objects associated with a bindery queue. To build a new queue for this printer, the two current objects must first be deleted. To delete, click the object, and then press the **DEL** key on the keyboard. Click the first object and simultaneously press the **CTRL** key to select more than one item.



Installing drivers using NDPS (.INF install only) (Internal)

Follow these instructions to vend (remotely install) the driver to other computers when they connect to the NDPS printer agent.

Note To install HP drivers using NDPS, first create the NDPS Broker and NDPS Manager. See your Novell administrator to do this.

Loading the drivers (Internal)

If you do not want to vend drivers, go to the next section, "Making NDPS printer agents."

Using NWAdmin32, load the drivers into Resource Management Services (RMS) of the NDPS Broker:

1. Right-click the **NDPS Broker** object, and then click **RMS**, the resource management button located on the right.
2. Click **Add Resources**.
3. In the resource types field, select the operating system to which you want to vend.
4. Click **Add**. This opens the Add Resources window.
5. Click the **Browse** button and navigate to the location in which you want to install the drivers.
6. Select the correct driver .INF file.
7. Install the first driver. When the install window closes, click **Add**, and continue installing all the drivers for the different operating systems you will be using.
8. Click **OK**, and then click **OK** again.
9. When you are finished, click **OK**, and then click **Cancel**.

The server is now set up to vend drivers automatically when workstations are associated with the shared printer.

15 An information window appears, informing you of the drivers you selected. You can either click **Cancel** and redo the selection or click **OK** to continue. Clicking **OK** closes all windows and return you to the NetWare Administrator Screen.

16 The newly created **Printer Agent** object appears at the top of the context list under which you built the object.

ZENworks 2.0 (Internal)

Making user policies (Internal)

User policies are created to send the drivers and associate the policy queues with the printer agent.

- Build an NDS Queue for each user first.
- You must use ZENworks version 2 or later for this process.
- Create a user policy for the specific user, and then enable the printer policy.

Note If you do not see the Policy icon when trying to create the user policy, you must install the ZENworks support pack on the server.

1 Name the policy to describe its purpose.

2 Click **Next** to continue creating policies.

3 Click **Create Another Policy**.

4 When all of the policies have been created, click **<finish>**. You need a different user policy for each printer driver or printer driver configuration used.

Associating the queues with the printer agent (Internal)

1 When finished creating the policy, open each policy and select the **NT User Printer Policy** check box.

2 Click **Details**.

3 Click **Add**.

4 Select (highlight) the NDS print queue object you previously made for this user/group.

5 Click **OK**.

6 Click **New Driver**.

7 Click **Clear Current Settings**.

8 Click **Select Printer Model**.

9 Click **Have Disk** and browse to where the drivers are located.

10 Install the driver that you want associated with this policy.

11 When the driver has been installed, click **OK**, click **OK** again, and then click **Cancel**.

When you log on to the system, the printer driver should be automatically sent to the workstation currently in use. If the printer driver is being sent to the workstation currently in use, continue completing the remaining users. If not, a problem might exist with the ZENworks installation. For installation information, go to the following URL:

http:\\www.Novell.com

Click **Get Support**, and then click **Knowledgebase**. Leave the first item in the dialog box blank. Under No. 2, Select **Document Sets**, use the drop-down menu to select **TIDs & Manuals**. In the field in Item 3, type "Installing ZENworks" (not case-sensitive). Click **Search Now**. From the search results, select the most recent information about installing ZENworks.

Troubleshooting (Internal)

Printer Status and Alerts .INF file (Internal)

This section presents the settings in the .INF file for the standalone Printer Status and Alerts program. The values are set by the printing installation during a Custom Installation.

Description of HPSTATUS.INI entries and their purpose

The following is a description of each section that HPSTATUS.INI can have, and the possible keys that each section contains as well as a description of the purpose for each key.

[allprinters]

As is implied by the section name, the keys in this section are for every printer installed, unless there is a printer-specific section, which has independent alert settings. An error alert is one that will stop the printer from printing. A warning alert is a less serious alert that does not stop the printer from printing.

Table 97: [allprinters] section

Key Name	Values	Meaning
onejobprocessingalert	*0	Printer Status and Alerts will **not**activate/display itself when a new job is detected
	1	Printer Status and Alerts will activate/display itself when a new job is detected
finishedjobalert	*0	Printer Status and Alerts will **not**activate/display itself when a print job has completed (includes finished or unknown)
	1	Printer Status and Alerts will activate/display itself when a job has completed (includes finished or unknown)
warningalert	*0	Printer Status and Alerts will **not**activate/display itself when a warning is active in the printer
	1	Printer Status and Alerts will activate/display itself when a warning is active in the printer
lowtoneralert	0	Printer Status and Alerts will **not**activate/display itself when low toner has been detected
	*1	Printer Status and Alerts will activate/display itself when low toner has been detected
erroralert	0	Printer Status and Alerts will **not**activate/display itself when an error has been detected
	*1	Printer Status and Alerts will activate/display itself when an error has been detected
* Default values after installation		

[refreshrate]

The keys in this section are specific to each printer, or all printers. The value for each printer indicates the update interval for which status will query the printer for the state of the print job or device alerts.

Note

In versions of Printer Status and Alerts earlier than 2.3, the "Status check rate" was referred to as the "Refresh rate" in the Printer Status and Alerts user interface.

Table 98: [refreshrate] section

Key Name	Values	Meaning
hidden	*0	The hidden key controls whether or not the Status check rate panel should appear within the Printer Status and Alerts options. This entry may be useful for administrators who do not want to let end-users control the Status check rate setting because of the negative impact on network performance. (See the LegacyPrinterDSRates section for more information about the Status check rate intervals.) Do not hide the Status check rate panel

Key Name	Values	Meaning
	1	Hide the Status Check Rate panel within the Printer Status and Alerts Options so that users cannot change the status check rate interval.
allprinters	0	Maps to the Status check rate setting of **Never** (Printer Status and Alerts will not track the status of print jobs).
	1	Maps to the Status check rate setting of **LessOften** (see LegacyPrinterDSRates section for more information).
	2	Maps to the Status check rate setting of **LessOftenPlusOne** (see LegacyPrinterDSRates section for more information)**.** The **Status check rate** setting one tick to the right of **LessOften**.
	*3	Maps to the Status check rate setting of **Middle** (see LegacyPrinterDSRates section for more information)**.** The middle Status check rate setting.
	4	Maps to the Status check rate setting of **MoreOftenLessOne** (see LegacyPrinterDSRates section for more information). The **Status check rate** setting one tick to the left of **MoreOften**.
	5	Maps to the Status check rate setting of **MoreOften** (see LegacyPrinterDSRates section for more information).
SpecificPrinterName	0-5	Each printer can have its own independent status check rate, just as the allprinters key does (above).
* Default values after installation		

[LegacyPrinterDSRates]

This section contains key and value pairs that control the update interval Printer Status and Alerts uses to query the state of a print job within a printer. The values for each key are in terms of milliseconds. Therefore, a value of 1000 is the equivalent of 1 second. The lower the Status check rate value, the more often the printer is queried for the state of a print job. (See the WindowsSpoolerDSRates section for similar update intervals.)

An administrator could speed up (lower the interval) or slow down (increase the interval) these Status check rates by modifying an HPSTATUS.INI file, and then replicate that file on all of the client systems. This is done by copying the file to each client's WINDOWS directory. If, however, the clients are running a shared version of Windows 95, Windows 98, or Windows Me, then simply putting the HPSTATUS.INI in the server's SYSTEM directory would also suffice.

Table 99: [LegacyPrinterDSRates] section

Key Name	Values[1]	Meaning
LessOften	120000	When the Status check rate slider control is set to the **LessOften**, print jobs will use the value for this key to check the status of a print job. (Update job state every 2 minutes.)
LessOftenPlusOne	90000	When the Status check rate slider control is set to the **LessOftenPlusOne**, print jobs will use the value for this key to check the status of a print job. (Update job state every 1 minute and 30 seconds.)
Middle	40000	When the Status check rate slider control is set to **Middle**, print jobs will use the value for this key to check the status of a print job. (Update job state every 40 seconds.)
MoreOftenLessOne	30000	When the Status check rate slider control is set to the **MoreOftenLessOne**, print jobs will use the value for this key to check the status of a print job. (Update job state every 30 seconds.)
MoreOften	10000	When the Status check rate slider control is set to the **MoreOften**, print jobs will use the value for this key to check the status of a print job. (Update job state every 10 seconds.)
1All values are default values.		

often the computer (spooler queue) is queried for the state of a print job. (See the LegacyPrinterDSRates section for similar update intervals) Because the spooler queue resides on the local computer, no networking is performed to get this state, so these update intervals can be set fairly high (2/10 of second) without affecting system performance.

An administrator could speed up (lower the interval of) or slow down (increase the interval of) these status-check rates by modifying an HPSTATUS.INI file, and then replicate that file on all of the client systems. This is done by copying the file to each client's WINDOWS directory, or, if the clients are running a shared version of Windows 95, Windows 98, or Windows Me, then simply putting the HPSTATUS.INI in the server's SYSTEM directory will suffice.

Table 100: [WindowsSpoolerDSRates] section

Key Name	Values 1	Meaning
LessOften	275	When the Status check rate slider control is set to the LessOften, print jobs will use the value for this key to check the status of a print job. (Update job state every 275 milliseconds = ~3/10 of second.)
LessOftenPlusOne	275	When the Status check rate slider control is set to the LessOftenPlusOne, print jobs will use the value for this key to check the status of a print job. (Update job state every 275 milliseconds = ~3/10 of second.)
Middle	275	When the Status check rate slider control is set to the Middle, print jobs will use the value for this key to check the status of a print job. (Update job state every 275 milliseconds = ~3/10 of second.)
MoreOftenLessOne	275	When the Status check rate slider control is set to the MoreOftenLessOne, print jobs will use the value for this key to check the status of a print job. (Update job state every 275 milliseconds = ~3/10 of second.)
MoreOften	275	When the Status check rate slider control is set to the MoreOften, print jobs will use the value for this key to check the status of a print job. (Update job state every 275 milliseconds = ~3/10 of second.)
1All values are default values. Because Windows spooler DS rates do not cause any network traffic, the values do not vary.		

[PrinterAlertRates]

This section contains key and value pairs that control the update interval that Printer Status and Alerts uses to query for the state of a direct-connected printer. The values for each key are in terms of milliseconds. Therefore, a value of 1000 is the equivalent of 1 second. The lower the status-check rate value, the more often the printer is queried for alerts. (See the "LegacyPrinterDSRates" section for similar update intervals.)

An administrator could speed up (lower the interval of) or slow down (increase the interval of) these status-check rates by modifying an HPSTATUS.INI file, and then replicate that file on all of the client systems. This is done by copying the file to each client's WINDOWS directory, or if the clients are running a shared version of Windows 95, Windows 98, or Windows Me, then simply putting the HPSTATUS.INI in the server's SYSTEM directory will suffice.

Table 101: [PrinterAlertRates] section

Key Name	Values 1	Meaning
LessOften	300000	When the Status check rate slider control is set to the LessOften, Printer Status and Alerts will use the value for this key to check the status of a direct-connected printer (checking for alerts). (Check for alerts every 5 minutes.)
LessOftenPlusOne	120000	When the Status check rate slider control is set to the LessOftenPlusOne, Printer Status and Alerts will use the value for this key to check the status of a direct-connected printer (checking for alerts). (Check for alerts every 2 minutes.)
Middle	60000	When the Status check rate slider control is set to the Middle, Printer Status and Alerts will use the value for this key to check the status of a direct-connected printer (checking for alerts). (Check for alerts every 60 seconds.)
MoreOftenLessOne	30000	When the Status check rate slider control is set to the MoreOftenLessOne, Printer Status and Alerts will use the value for this key to check the status of a direct-connected printer (checking for alerts). (Check for alerts every 30 seconds.)

Key Name	Values 1	Meaning
MoreOften	10000	When the Status check rate slider control is set to the MoreOften, Printer Status and Alerts will use the value for this key to check the status of a direct-connected printer (checking for alerts). (Check for alerts every 10 seconds.)
[1]All values are default values.		

[EWSConnect]

This section controls the timeout value for attempting to connect to the embedded Web server (EWS) within the printer. If the printer does not respond within the following timeout value specified, Printer Status and Alerts will assume that the EWS is not present within the printer.

Table 102: [EWSConnect] section

Key Name	Values	Meaning
EWSTimeout	4000	Timeout value for retrieving data from the EWS within the printer. The time specified is in milliseconds. (4000 milliseconds = 4 seconds.)

[bidilevel]

This section controls the bidirectional protocol level at which queries are performed on the device.

Table 105: [bidilevel] section

Key Name	Values	Meaning
Bidilevel	*1	Performs standard PML get requests from the device.

Key Name	Values	Meaning
	2	Performs advanced PML multi-get requests from the device. This value should only be used for Jetdirect cards that have a firmware version higher than G.05.35. If the bidilevel is set to 2, and the printer frequently errors out with the error EIO 82.0180, the bidilevel must be set 1. This bidilevel setting will help improve response time, but due to bad firmware in the Jetdirect card it can cause errors in the printer.
* Default values after installation		

Enabling or disabling Printer Status and Alerts support

2. Change directories so that the current directory is the windows\system directory. (For Windows 95, Windows 98, and Windows Me operating systems, it will typically be windows\system; for Windows NT 4.0, Windows 2000, and Windows XP systems, it will be winnt\system32.)
3. Make sure Printer Status and Alerts is closed. If it is not, right-click the Printer Status and Alerts tray icon and click **Exit**.
4. Type the command: **hpbdrvhk -u "Name of the Printer Goes Here"**.
5. Repeat step 4 for each printer name that is to be removed.
6. Power-cycle the computer off and on again.
7. When Printer Status and Alerts is finished loading, the name of the printer(s) supplied in step 4 should no longer appear in the Printer Status and Alerts application window. If it does, repeat steps 3 through 6. The name should not appear in Printer Status and Alerts a second time.

Removing support for a specific driver

1. Open a command prompt window.
2. Change directories so that the current directory is the windows\system directory. (For Windows 95, Windows 98, and Windows Me operating systems, it will typically be windows\system; for Windows NT 4.0, Windows 2000, and Windows XP systems, it will be winnt\system32.)
3. Make sure Printer Status and Alerts is closed. If it is not, right-click the Printer Status and Alerts tray icon and click **Exit**.
4. Type the command: **hpbdrvhk -r "Name of the Printer Goes Here"**.
5. Repeat step 4 for each printer name that is to be removed.
6. Type the command: **hpstatus.**
7. Any printer that references the same driver model name will no longer be supported by Printer Status and Alerts.

Driver Support Matrix (HPSASDRV.MTX)

The status component determines which printer drivers it supports by consulting a file called the Driver Support Matrix (DSM), which is named HPSASDRV.MTX. This DSM file is nothing more than an .INI file that contains entries of driver model names that it specifically supports, or specifically does not support.

DSM File Format

The format of the DSM file looks like this:

[Driver Model Name]supported=[0|1]

Each driver model name that status supports will have an entry in this file. For example, the 8150 PS driver has an entry in the DSM file that looks like this:

[HP LaserJet 8150 Series PS]supported=1

The DSM can also have entries that specifically prohibit known drivers that status does not support:

[Driver Model Name, NotSupported]driverFileName,x.y.z=1

This type of entry is used by status to exclude support for a specific driver model name, by using a specific driver file and version. For example, the 8500 PCL drivers for Windows 95, Windows 98, Windows Me, and Windows NT 4.0 are not supported because the printer drivers are not written so that status proxy drivers can hook the OS functions they call. Disabling support for these types of drivers is accomplished by having the following entries in the DSM:

[HP CLJ 8500 - PCL,NotSupported]HPCPCLA.DRV,1.0.0090=1;; windows 9x pcl driver is not supported

[HP CLJ 8500 - PCL,NotSupported]HPCPCLA.DLL,1.0.0090=1;; windows NT4 Kernel Mode driver is not supported

Troubleshooting

If Printer Status and Alerts is conflicting with some other program, or if a specific driver model is causing problems, perform the following steps to resolve the appropriate issue.

General problem solving

To determine the state of Printer Status and Alerts and the printers it is currently monitoring, and to discover how to remove a specific printer, consult the following table.

Table 106: Problem solving

Problem	Solution(s)	Description of Solution(s)
When a job is printing and Printer Status and Alerts tracks the status of the print job, it immediately shows the Unknown Job state.	Try changing the device to a different port.	Bidirectional communication is supported only for a limited set of network port types for version 1.01 of Printer Status and Alerts: • HP Standard TCP/IP port • Microsoft Standard TCP/IP port • LPR ports • shared ports (**\\server\share**) (includes NetWare shared ports) Bidirectional communication also supports line printer terminal (LPT) ports and DOT4 ports (both for parallel and USB connections) but Printer Status and Alerts does not provide job status for these port types; rather, it provides device alerts. Printer Status and Alerts does not support shared LPT ports or shared DOT4 ports.
When a job is printing and Printer Status and Alerts tracks the status of the print job, after a few minutes of time, it eventually shows the Unknown Job state. (It always behaves this way.)	1. Verify that the connection is valid by clicking the printer icon within Printer Status and Alerts.	If the printer device status shows up correctly, then this is most likely a compatibility issue with the printer driver (see solution #2 for this problem). If it shows a broken connection-.JPG, then the problem is with the device, and Printer Status and Alerts is unable to communicate with it. Resolve the communication problem with the printer. If the device is working properly, and Printer Status and Alerts still cannot communicate with it, then Printer Status and Alerts will not support the device: 1. Open a command prompt window. 2. Change directories so that the current directory is the windows \system directory (For Windows 95, Windows 98, and Windows Me systems, it will typically be windows \system; for Windows NT 4.0, Windows 2000, and Windows XP systems, it will be winnt\system32.)

Problem	Solution(s)	Description of Solution(s)
		3. Make sure Printer Status and Alerts is closed. If it is not, right-click the Printer Status and Alerts tray icon and click **Exit**. 4. Make sure that all other programs are closed. 5. Type the command: **hpbdrvhk -u "Name of the Printer Goes Here"**
	2. If the device status works correctly from solution #1, then the problem is most likely because of an unsupported printer driver model.	The printer driver might be incompatible with the Printer Status and Alerts proxy drivers, so it should be disabled or removed. Follow these steps: 1. Open a command prompt window. 2. Change directories so that the current directory is the windows \system directory. (For Windows 95, Windows 98, and Windows Me systems, it will typically be windows \system; for Windows NT 4.0, Windows 2000, and Windows XP systems, it will be winnt\system32.) 3. Make sure Printer Status and Alerts is closed. If it is not, right-click the Printer Status and Alerts tray icon and click **Exit**. 4. Make sure that all other programs are closed. 5. Type the command: **hpbdrvhk -r "Name of the Printer Goes Here"**. 6. Type the command: **hpbdrvhk -u "Name of the Printer Goes Here"**.
You do not want Printer Status and Alerts to track job status or show device status for a specific printer.	Remove the printer from the Printer Status and Alerts list.	1. Open a command prompt window. 2. Change directories so that the current directory is the windows \system directory. (For Windows 95, Windows 98, and Windows Me systems, it will typically be windows \system; for Windows NT 4.0, Windows 2000, and Windows XP systems, it will be winnt\system32.) 3. Type the command: **hpbdrvhk -u "Name of Printer Goes Here"**.
You do not want Printer Status and Alerts to track job status or check for device alerts on any of the printers, but you do want to use the Device Status feature.	Click the **Options** Icon, and then click **Next** so that the **Status check rate** option appears in the right panel. Move the slider to the far left, pointing to **Never**.	Setting the **Status check rate** option to **Never** disables all print job tracking, but still allows you to select one of the printer icons to get device status. In the event that the administrator has hidden the **Status check rate** option and you cannot see this option, complete the following steps:

Problem	Solution(s)	Description of Solution(s)
		1. Choose the **Start | Run** menu and type: **notepad**. 2. When notepad opens, choose the **File | Open** menu and browse to the windows directory, and select the file HPSTATUS.INI. 3. In the HPSTATUS.INI file, locate the [refreshrate] section, and set the allprinters entry equal to 0 (zero). 4. Save the file and exit Notepad. 5. The change will take effect for the next print job.
You do not want Printer Status and Alerts to track job status or show device status for a specific printer, but you do want to see the device status for that printer.	Click the **Options** Icon, and then click **Next** so that the **Status check rate** option appears in the right panel. Select the specific printer in the **For** list, and then move the slider to the far left, pointing to **Never**.	Setting the **Status check rate** option to **Never** disables print job tracking for the specific printer, but still allows you to select the printer icon to get device status. In the event that the administrator has hidden the **Status check rate** option and you cannot see this option, complete the following steps: 1. Choose the **Start | Run** menu and type: **notepad**. 2. When Notepad opens, choose the **File | Open** menu and browse to the Windows directory, and select the file HPSTATUS.INI. 3. In the HPSTATUS.INI file, locate the [refreshrate] section. Create a new entry with the exact name of the printer and set it equal to 0. The entry would like something like this: [refreshrate]HP LaserJet 8150 Series PCL6=0 4. Save the file and exit Notepad. The change will take effect for the next print job.
When the printer was renamed, Printer Status and Alerts did not detect the changes.	Printer Status and Alerts might not update the printer list immediately, and you need to shut down Printer Status and Alerts and restart it.	Version 1.01 of Printer Status and Alerts typically does not update the name of the printer, or even remove the old printer name. To fix this problem, right-click the Printer Status and Alerts system tray icon, and click **Exit**. Then click the Start | Run menu and type in **hpstatus** to reload status. Printer Status and Alerts then picks up the printer changes and shows the renamed printer.

Problem	Solution(s)	Description of Solution(s)
Newly installed printers are not showing up in Printer Status and Alerts.	Shut down and restart the system.	When Printer Status and Alerts first loads, it performs a check of the system to see if any new printers have been installed. If it detects a new printer that it supports, it will automatically add the printer to the printer list. If the printer was installed, then removed, and installed again, Printer Status and Alerts might not add it automatically and it will have to be added manually. To do this, complete the following steps: 1. Open a command prompt window. 2. Change directories so that the current directory is the windows \system directory. (For Windows 95, Windows 98, and Windows Me systems, it will typically be windows \system; for Windows NT 4.0, Windows 2000, and Windows XP systems, it will be winnt\system32.) 3. Make sure Printer Status and Alerts is closed. If it is not, right-click the Printer Status and Alerts tray icon and choose **Exit.** 4. Type the command: **hpbdrvhk -i -a**. 5. Restart the system.

The HPBDRVHI.EXE utility

In general, the HPBDRVHK.EXE can be used to solve various problems. The following is a list of the command line options that are available to the support utility, along with their meaning.

Table 107: Command line options

Command Line Option	Sample	Meaning
-e	hpbdrvhk -e	**Enumerates** all printers installed on the computer.
-h	hpbdrvhk -h	Enumerates all printers installed on the computer that Printer Status and Alerts is currently tracking print jobs for, or has **hooked**.
-u	hpbdrvhk -u "My 8100"	Uninstall Printer Status and Alerts support for the specified printer.
	hpbdrvhk -u -a	Uninstall Printer Status and Alerts support for **all** printers.
-i	hpbdrvhk -i "My 8150"	Install Printer Status and Alerts support for the specified printer. If the driver model name used by this printer is supported, then the printer will be supported by Printer Status and Alerts; otherwise, it will report back the following error message: The driver used by (My 8150) is not supported.
	hpbdrvhk -i -a	**Install** Printer Status and Alerts support for all printers that use a driver model that is supported by Printer Status and Alerts.
-s	hpbdrvhk -s "My 9000"	Adds the driver model name used by the specified printer to the driver **support** matrix file.

Command Line Option	Sample	Meaning
-r	hpbdrvhk -r "My 9000"	**Removes** the driver model name used by the specified printer from the driver support matrix. This means that any other printer which uses the same driver model as the printer "My 9000" will no longer be supported by Printer Status and Alerts.
-x	hpbdrvhk -x "HP DeskJet"	**Excludes** the driver model name using the specified printer driver file from the driver support matrix. This option is generally not needed, but could be useful in a shared environment. If an administrator discovers that Printer Status and Alerts is causing problems with a specific driver/printer, but works correctly with a newer version of the driver/printer, this option can then be run on one machine, and then replicated to other machines. This option records the printer driver file version for the driver model name, used by the specified printer, as an unsupported driver model. If a new printer driver file with the same name and a newer version is released, and is found to work with Printer Status and Alerts, Printer Status and Alerts will support the printer using the newer driver files.
-c	hpbdrvhk -c "My Printer"	**Cleans** the registry information and Printer Status and Alerts driver hooking information should any remnants be left behind. This option should only be used if the hpbddrvhk -u (uninstall) option fails after three consecutive attempts.
	hpbdrvhk -c -a	Use the -a option to clean up all printer settings after the hpbdrvhk -u -a command has been run.

Printer Status and Alerts is causing problems with a specific driver model

To resolve this issue, perform the following steps:

1. Open a command prompt window.
2. Change directories so that the current directory is the windows\system directory. (For Windows 95, Windows 98, and Windows Me systems, it will typically be windows\system; for Windows NT 4.0, Windows 2000, and Windows XP systems, it will be winnt\system32.)
3. Make sure Printer Status and Alerts is closed. If it is not, right-click the Printer Status and Alerts tray icon and click **Exit**.
4. Make sure that all other programs are closed.
5. Type the command: **hpbdrvhk -r "Name of the Printer Goes Here"**.
6. Type the command: **hpbdrvhk -u "Name of the Printer Goes Here"**.
7. Repeat step 5 and 6 for each printer name that references the driver model name and that is causing problems.
8. Restart the system.
9. Any printer that references the same driver model name is now no longer supported by Printer Status and Alerts.

   If you are still experiencing problems with this driver or printer and Printer Status and Alerts, then complete the following additional steps:
10. Repeat steps 1 through 4, above.
11. Type the command: **hpbdrvhk -c "Name of the Printer Goes Here"**.
12. Repeat step 11 for each printer name that was used originally in the steps 1 through 4.
13. Restart the system.

If you are still having problems, then continue with the following steps:

14. Repeat steps 1 through 4, above.
15. Type the command: **hpbdrvhk -u -a**.
16. Type the command: **hpbdrvhk -c -a**.
17. Choose the **Start|Run** menu and type in: **REGEDIT**.
18. Browse to HKEY_LOCAL_MACHINE\Software\Hewlett-Packard\HPSpoolerImportFixup.
19. Delete any subkeys that have a printer driver model name (such as "HP LaserJet 8150 PS).
20. Delete all values except these three, if they are present: NewImportModule, ReplacerModule, NewImportModuleUM.
21. In the registry editor, browse to HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Print\Environments.
22. If this is a Windows 95, Windows 98, or Windows Me system, proceed to the steps for Windows 95, Windows 98, or Windows Me.
23. If this is a Windows NT 4.0 system, proceed to the steps for Windows NT 4.0.
24. If this is a Windows 2000 or Windows XP system, proceed to the steps for Windows NT 4.0, and then complete the steps for Windows 2000 and Windows XP.

For Windows 95, Windows 98, and Windows Me

1. In the registry editor, select the Windows 4.0\Drivers key.
2. Select the first driver key and go to "For all operating systems."

For Windows NT 4.0

1. At the command prompt, type: **net stop spooler**.
2. In the registry editor, select the Windows NT x86\Drivers**Version-2** key.
3. Select the first driver key and go to "For all operating systems."

For Windows 2000 and Windows XP

1. Complete Windows NT 4.0 steps 1 through 3, but **do not** restart the system until all of these Windows 2000 and Windows XP steps have been completed.
2. In the registry editor, select the Windows NT x86\Drivers**Version-3** key.
3. Select the first driver key and got to "For all operating systems".

For all operating systems

1. If a value named **RealDriver** exists, right-click the driver value and click **Delete**. Then, right-click on the **RealDriver** value and click **Rename**. Rename the **RealDriver** value to be Driver.
2. If no value named **RealDriver** exists, proceed to the next step.
3. Select the next driver model name key in the registry and repeat steps 1 and 2 until each one has been inspected.
4. Restart the system.

Printer Status and Alerts is conflicting with other program(s)

2. Change directories so that the current directory is the windows\system directory. (For Windows 95, Windows 98, and Windows Me systems, it will typically be windows\system; for Windows NT 4.0, Windows 2000, and Windows XP systems, it will be winnt\system32.)
3. Make sure Printer Status and Alerts is closed. If it is not, right-click the Printer Status and Alerts tray icon and choose **Exit**. After choosing Exit, make sure you select the **No, don't start automatically** option.
4. Make sure that all other programs are closed.
5. Type the command: **hpbdrvhk -u -a**.
6. Type the command: **hpbdrvhk -c -a**.
7. Restart the system.
8. If printing does not continue after restarting, see "Printer Status and Alerts is causing problems with a specific driver model".

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